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THE WORLD IN COLOR

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Including a Special Survey of

THE LEAGUE OF NATIONS

By

GRAHAM SPRY, B.A.

and A FOREWORD by

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Volume V

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Hyam

VEILED MOORISH BEAUTY ON THE BALCONY OF HER HOME

The ideals of Moorish art and architecture were usually expressed in mosques and palaces, but there are also many fine examples in private homes, such as this, which few of us ever have the opportunity to see. Notice the graceful arches, the twisted columns and particularly the beautifully designed mosaic work.

MOROCCO AND THE MOORS

A Glimpse of the Most Western Land of Islam

Known to the Arabs as "The Farthest West," Morocco was split up, until comparatively recent times, into a number of pirate kingdoms, whose searovers were the dread of the merchant-shipping trading in the neighboring waters. Though a sultan still governs the country, a large part of it is a French protectorate, and the remainder is controlled by Spain. It is strange to find that the proud conquerors of Spain have changed places with their former subjects. The Spanish zone is inhabited by the warlike Rifs, who have proved so troublesome to the Spaniards that it took the combined efforts of Spain and France during 1925-26 to subdue them.

LESS than two hundred years ago few travelers from the West had ever been to North Africa, and those who did go seldom returned to their native shores, for many of the seaports were the haunts of pirates and slave-traders, who liked nothing so much as the sight of a becalmed and heavily laden merchantman.

They were good seamen were these Corsairs and drove their long-oared galleys, rowed by slaves of all nations, even as far as the coasts of England, where they would land and attack some unfortunate Cornish hamlet at night, dragging off the inhabitants to hopeless slavery.

The lands along the coast of North Africa, whence these pirates came, were then known as the Barbary States from the original inhabitants, the Berbers who have probably existed there since the Stone Age. The Berbers, who are black in color but are really members of the white race whose skin has tanned and darkened through exposure to countless ages of African sun, were cut off from conquest to the south or from intermingling with the black race of Central and South Africa by the vast Sahara Desert, more impassable than any sea.

Walling off this "land of the Berbers" still more effectively is the snow-clad Atlas Mountain range, divided into the Great, Middle and Little Atlas, which stretches along the edge of the Sahara from Morocco in the west to Tunisia in the east. It was the sight of their great heights, lost in the clouds, that caused the Greek sailors to say that here Atlas was holding the world on his shoulders and the name has remained to this day.

The fertile, coastal strip was easily accessible, however, from the Mediterranean which washed its shores on the north and brought traders and conquerors alike. The Phœnicians and the Greeks came; the Romans established colonies; there were invasions of the Vandals, but the Berbers seemed little affected by the contact with other peoples.

In the seventh century came the Arabs enforcing Mohammedanism as they conquered even into the most inaccessible region, "The Farthest West," which came to be known as Morocco, and its inhabitants Moors, though this name only rightfully belongs to those who have Arab and Berber blood in their veins. The Moors became great conquerors. Their great military period was in the eighth century, when they sailed across the Strait of Gibraltar and seized upon the southern half of Spain. There, in Andalusia, they flourished for centuries. They built palaces and mosques that have never been surpassed for delicate refinement of detail.

Their monument in Spain is that gem of Moorish architecture, the Alhambra, the red palace of the sultans that still stands with its fountains and courtyards intact. Moorish philosophers and chemists kept alight the lamp of learning when Europe had sunk into savagery.

There seemed to be something lacking in the Moorish character. Having gone so far, they sat down to rest, to depend upon slave labor and to quote from the Koran, the bible of the Moslem world, instead of thinking for themselves.

This instability of character is reflected in the country itself. During the few



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STORKS' NESTS UPON THE ROOFTOPS IN THE PORT OF RABAT

Storks are considered to be sacred birds by the Moroccans, and are allowed to build their nests upon the roofs of the houses. Rabat, which these storks have chosen for their home, is a fortified port on the Atlantic coast and is famous for its manufactures of beautiful carpets and rugs, mats, cloth, pottery and excellent morocco leather.

weeks of spring, the land is a paradise of wild flowers and birds, but by July most of Morocco is once more a scorched and barren waste.

Though the Moor has stood still for centuries, his country is now beginning to move forward again. The French, who are the real masters of Morocco, are largely the cause of this. They are making roads, constructing railways, planting millions of olive trees and digging wells. We can best see the work of the French

at Casablanca, which they first occupied in 1907. Here the old and the new rub shoulders. Camels and motor cars, Moors and French officers mix together in the wide streets and before the great hotels. Over the new white and yellow houses shines the fierce African sun, and behind is the tumbling Atlantic where the new harbor grows apace.

Casablanca is the new Morocco; Marrakesh may be taken as an example of the old. It is an inland city built in a

MOROCCO AND THE MOORS

large oasis of palms, and behind it loom the great snow-clad peaks of the vast Atlas regions—the mountainous backbone of Morocco. The French military road to Marrakesh runs across desert where nothing grows and where the heat is intense. An occasional motor car flies past strings of laden camels which grimace as if in disgust.

The ancient rose-red walls of Marrakesh are seven miles round; from their ten gateways once marched the armies

that carried fire and sword into Spain. Though a garage here and there shows the growth of European ideas of transport, the town is much the same as it was centuries ago.

In the streets, gray-eyed Berbers, in their cloaks of woven goats' hair, woolly-haired men from the Sudan, Negro slaves, Jews and wild-looking nomad Arabs jostle together, for Marrakesh is a great centre of the trading caravans, and here may be heard a hundred strange lan-



BATTERED WALLS ENCIRCLING THE TOWN OF MARRAKESH

Félix

Marrakesh, or Morocco City as it is generally named by Europeans, contains many old and dilapidated buildings, enclosed by red walls that are slowly crumbling. The city is situated in a plain at the foot of the Atlas mountains, and about it are gardens and groves of date-palms. Morocco, the southern capital, has changed but little since the arrival of the French.

guages. Camels and mules press through the crowds of gaping sightseers, merchants and beggars. Snake-charmers play on wooden flutes and allow their reptiles to bite their hands. As the serpents' poison glands have been removed, this is not so dangerous as it looks. Cake-sellers and venders of water and fruit cry their wares, and Negro jugglers and acrobats do their utmost to attract the people.

Cities That Are Truly Eastern

Here, as a living reproach to the memory of some bygone governor, stands an old Negro whose eyes have been put out for theft. He pleads monotonously for alms and he does not go unrewarded. The crowd is a mass of color, and the gaudy cloaks and scarves, yellow silks, silver girdles and gay turbans are dazzling to eyes that are accustomed only to the more sombrely dressed crowds in our country.

Marrakesh, once the capital of the old Moorish empire which included Spain, Tunis and the Sudan, is now only a shadow of its old self, but the Moors do not regret the departure of its glory. Under the shadow of its crumbling palaces and mosques, they quote their old proverb: "When a thing becomes perfect it soon fades." "What is to be will be," say the Moors and leave the magnificent, old buildings to decay, or to be restored by the French.

Fez, the capital, holds much of the old glory of Morocco. Here there are still holy men and story-tellers, mosques and shrines which no infidel may enter. The walls and ramparts are immense, and the town itself is a gigantic maze of minarets, green tiled roofs and great Saracenic archways that may lead to a hovel or a palace.

A Glimpse of a Moorish Palace

Bou Jeloud is one such palace hidden away and seemingly forgotten. Its court-yards are set with Moorish fountains, and there are gardens within its walls where fig trees, roses and enormous masses of geraniums bloom in a setting of fairy-like, Moorish architecture, with its wealth of colored tiles and carved cedar wood

and its elaborate geometrical designs in plaster and stone.

The Moors are very superstitious. Some years ago a half-witted man in Fez used to remain in prayer for weeks at a time. This, added to his madness, which, in the East, is always taken as a sign of holiness, caused him to be regarded as a saint. He was thought too holy to be seen by common people, and a shrine was built for him wherein candles are kept burning night and day.

Though most people think of the Moors as one people, they are really composed of several distinct races. First, we have the true Arab, the descendant of the fierce Mohammedans from Arabia who conquered North Africa centuries ago. He inhabits the plains and the great towns. The Berber who lives in the hills and is sometimes gray-eyed and fair in coloring is the original inhabitant of the country. The Rifs who have fought so long against Spain and France are of this race. Negroes there are in plenty.

In all the coastal towns there are many Jews. They are the descendants of those who fled to escape the Spanish persecutions, or rather, to exchange one set of persecutors for another, for before the French occupation, the Moors treated the Jews very cruelly. Jews were fined heavily, were forbidden to ride horses—the horse was held to be too noble an animal to be ridden by a Jew—and were often attacked in the open street by the mob. Every big Moorish town has its Mellah, or Jewish quarter, where the Jews were forced to live by themselves.

In Spanish Morocco

Besides the part of Morocco that is under the rule of the French, and the Tangier Zone, which has been internationalized, there is also Spanish Morocco. This is a much smaller protectorate, mountainous and sparsely settled by several tribes of Berbers. They are pastoral people, that is to say, they depend chiefly on their cattle, sheep and goats for food and clothing.

This mountainous district, which is north of the Atlas region, is known as



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MOORISH WOMEN of the higher classes, as in other Mohammedan countries, are kept in strict seclusion. They are not allowed to leave their homes unless their faces are veiled and unless they cover themselves with a cloak that reaches almost to the ground. The houses are built with flat roofs where the women may sit and chat in the cool of the evening.



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CAMP OF SAVAGE NOMADS AMONG THE WOODED HILLS OF THE MIDDLE ATLAS

Atlas cedars cover the slopes of the mountains in the Middle Atlas, and in the open spaces fierce tribes of nomads pitch their tents. Few white men have penetrated into this region and the fierce and warlike inhabitants remain untouched by the civilization that has made so many changes elsewhere. The Middle Atlas Mountains are joined by a lower range to the Higher Atlas system that borders the vast desert of the Sahara. In this region might be said to lie Darkest Africa, even more difficult of access and more unknown than the heart of the continent.



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EAGER BARGAINERS IN THE MARKET PLACE AT TETUAN, THE CAPITAL OF SPANISH MOROCCO

Tetuan is divided into two portions. The Moorish quarter, that we see here, is separated from the Spanish town which was built outside it. The town is one of the most interesting places in Morocco and seems to be perpetually in a state of feverish activity. Here lives the Moroccan

Calipha, who governs the country under the direction of a Spanish High Commissioner. In the shopping quarter each trade has its own street, and much of the commerce of Tetuan is controlled by Jews. The large straw hats are much worn during the summer months.



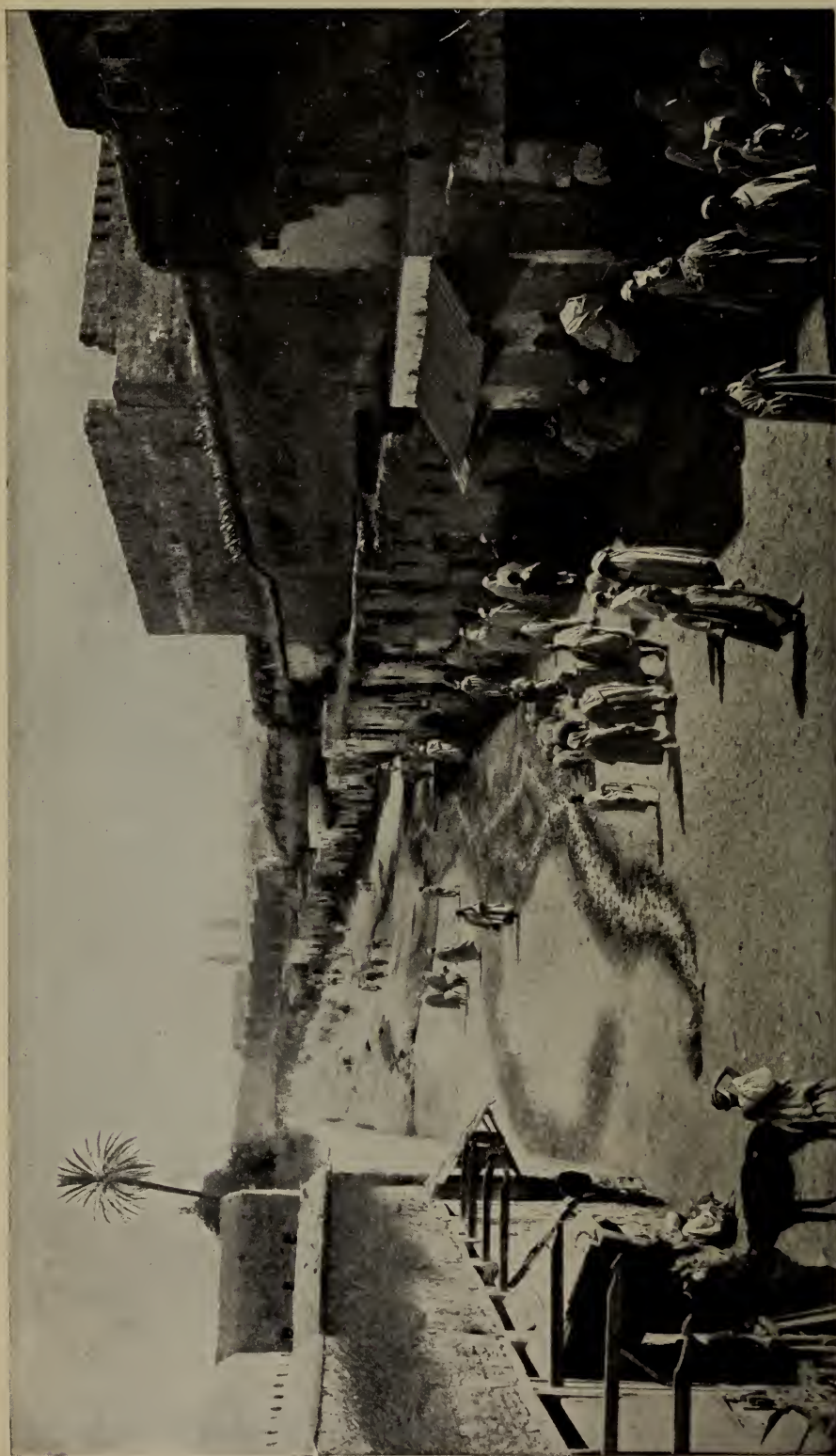
HARDIE

MOORISH MEN AND WOMEN as a rule are cultured and intelligent, qualities that are only natural in the members of a race that has created one of the most beautiful styles of architecture. In the privacy of their homes, the women wear clothes of bright silks and brocades and much jewelry. The men usually envelop themselves in a voluminous garment.



NICHOLLS

GRAVE AND DIGNIFIED are these two Moors who seem outwardly quite content with their lot, but inwardly disapprove strongly of the changes that are taking place in their country. Under the firm control of the French, brigandage and tribal wars can no longer be carried on, so the Moor, a warrior first and foremost, is kept from that form of enjoyment.



Noble

OLD WALLS OF HEWN STONE THAT WERE BUILT TO PROTECT THE TOWN OF MAZAGAN IN MOROCCO

As it is situated on the Atlantic coast of Morocco, Mazagan is a seaport of some importance. From it are exported the products of the fertile inland districts, especially beans, corn, wool, hides and almonds. It once belonged to the Portuguese, who built these high walls as a means of defense, but the colonists were driven out in the 18th century. The Moorish inhabitants, as we see here, have not attempted to preserve the walls. Over the outer ramparts grow creepers, bushes and palms, and against the inner barrier stand mean houses and booths.



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STREET IN MEQUINEZ, ONE OF THE FINEST CITIES IN MOROCCO

Fez, Morocco City and Mequinez became known as the three capitals of the country, because the sultan and his court used to move from one to another. Mequinez is about 36 miles from Fez, and is surrounded by olive plantations. The shops, as we can see here, are not unlike large holes in a wall, with the upper portions of the shutters serving as awnings.

the Rif, and the inhabitants are great fighters. Physically these Rifs, or Riffis, are a much finer race than the true Moors, and many of them are red-haired and gray-eyed. To account for this, some learned men say that the Rifs are descended from Scandinavians who landed in Africa in the twelfth century.

There may be some truth in this theory of a common ancestry with our own race, for the Rifs, though fierce, have not the Oriental ferocity of the other Moors, but are warlike in a genial, hearty way, like the old German robber barons, or the early Saxons.

It is not surprising that these fighting races resented the Spanish occupation of their lands, and, at various times revolts started among certain tribes. An indecisive guerrilla warfare was carried on till 1921, when the Rifs captured 20,000 Spanish troops with all their artillery, transport and ammunition. This is known in history as the Melilla disaster.

Abd-el-Krim, the leader of the Rifs, reorganized his army on modern lines, and now attacked the Spaniards vigorously. For a time he was successful, and

the courage of the Rifs and the fanatical bravery of their allies (who regarded the campaign as a Jihad or Holy War) prevailed against the armies of Spain. Nevertheless, Spain, unwilling to lose the last vestige of her empire, refused to withdraw from the struggle.

Unfortunately for Abd-el-Krim, some of his allies made raids into the French protectorate. With Spain he could deal, but to challenge the greatest military power in Europe was quite another thing. From the day France entered the war, Rif independence was doomed. Aeroplanes, tanks and heavy artillery proved too much for the tribesmen, and after a long and desperate war with the two European powers, Abd-el-Krim surrendered to the French in 1926.

There has not been nearly so much trouble in French Morocco. The French rule benevolently and with firmness. Also they understand the Moor. When the great market place in Fez was destroyed by fire, Marshal Lyautey, the Resident-General, caused a replica to be built, with all the shrines of Moslem saints just as they had been before the conflagration.



© E. N. A.

THE CARPENTER'S FOUNTAIN in Fez shows the architectural skill of the old Moors, a skill their descendants do not seem to possess. The city gave its name "fez" to a certain kind of cap, which was originally made there and which is worn in most Mohammedan countries. Fez, the northern capital of Morocco, is divided into two portions by the River Pearl.



© E. N. A.

FEZ, A HOLY CITY of Islam, contains the shrine that we see here. It is that of Mulai Edris II, the founder of the city, and no infidel may set foot therein. Within the city walls are mosques and palaces and gardens, and the university, though formerly much larger, is famous as a centre for the study of the Mohammedan religion and law.

MOROCCO AND THE MOORS

Like the Romans who once occupied these regions, the French regard the roads as the greatest civilizing influences. Roads mean communication, and communication means the exchange of ideas, the growth of commerce and security. When the roads were being constructed in 1916, the Moors would descend at night and destroy them, killing the unfortunate workmen. Doubtless they realized that these military roads were to be the unbreakable chains of French dominance in Morocco, but their efforts to stop the work were quite useless. The guards

were doubled, and the work proceeded. Saleh, Rabat, Marrakesh and, indeed, all the big towns are linked up by excellent systems of roads, and there are hundreds of miles of railways stretching their length across the desert sands.

Under the French, Morocco is changing fast, save only in those lesser-known Atlas regions where the great Berber feudal lords still keep their courts as of old, and soon the Moor will no longer be content to dream of his past among the faded splendor of ruined palaces and the tombs of departed sultans.

MOROCCO: FACTS AND FIGURES

THE COUNTRY

Lies on the northwest coast of Africa; bounded on the north by the Mediterranean, on the east by Algeria, on the south (indefinitely) by the Sahara and on the west by the Atlantic. The district of Tangier (area 225 square miles; population about 80,000) is internationalized; the northern zone is a Spanish protectorate (area 18,300 square miles; population about 1,000,000); the remainder a French protectorate (area 200,000 square miles; population 4,229,146). Along the Atlantic Coast, southwest of Morocco are the Spanish African colonies of Rio de Oro and Adrar (area 109,200 square miles; population 495) under the government of the Canary Islands; and Ifni (area 965; population 20,000).

GOVERNMENT

The French Zone is a French protectorate, dating from April, 1912. The sultan is religious primate and chief-of-state under advice of the French Resident-General. Administration in the hands of the French and a native organization. Local administration is in the hands of native pashas and French controllers. The Spanish Zone is under the control of the Spanish High Commissioner and a Calipha who is chosen by the sultan from 2 candidates named by the Spanish government. Tangier has by statute of 1923 become permanently neutralized and demilitarized. It has an autonomous government; legislative power is vested in an assembly of 27 members. A Consular Committee of Control has right of veto. Administration under an administrator with assistants for health, finance, etc. A representative of the sultan deals with native affairs.

COMMERCE AND INDUSTRY

French Zone—Agriculture is the most important industry, but is carried on by natives using primitive methods. Principal crops are cereals, beans, chickpeas, canary seed, olives, vines, fruits and almonds; considerable forests of cord, cedar, arar, argan and oak. Gums are

produced. Phosphate is the principal mineral. Fishing and livestock-raising are important. Miscellaneous industries include flour mills, breweries, soap, candle factories, cement factories. The exports are phosphates, wheat, eggs, wool and almonds. Imports are sugar, cotton textiles, mineral oil and petrol, tea, beverages, automobiles and machinery.

Spanish Zone—Agriculture of most primitive fashion is the chief industry; iron ore is mined; tunny fishing is important. Exports are eggs, livestock, iron ore and agricultural products; imports are wines, textiles, tea, sugar and candles.

Tangier Zone—Most important industries are cigarette-making and fishing. Exports are skins, eggs and tinned fish; imports are flour, sugar, candles, fabrics, tobacco, coffee and tea.

COMMUNICATIONS

There are about 1,080 miles of railway in French territory and about 90 miles in Spanish. Good roads are being constructed in French territory. Daily aeroplane service. Length of telegraph lines in French Zone is 1,470 miles; important centres in Spanish Zone are connected. Wireless stations in French Zone. There is telephone service in all zones.

RELIGION AND EDUCATION

Natives Sunni Mohammedans of the Malekite School; most of population illiterate. The Koranic schools attached to mosques give elementary education, and a few give secondary education. There are 2 Moslem colleges at Fez and Rabat. The French maintain primary and secondary schools conducted along European lines. Spanish Zone has state schools and schools for natives.

CHIEF TOWNS

French Zone—Marrakesh, population, 149,263; Casablanca, 106,608; Fez, 81,172; Rabat, 38,044; Meknes, 29,930; Saffi, 26,914; Salé, 20,965.

Spanish Zone—Tetuan, 24,000; Larache, 15,500; Alcazar, 12,750.

FROM SENEGAL TO SOMALILAND

France's Negro Colonies in Africa

France's Arab and Moorish peoples in Africa are treated in other articles, as are Madagascar, Réunion and Mayotte. This article deals chiefly with those French colonies where the population is predominantly Negro and includes a fringe of small coast holdings reaching into the interior, which varies from the aridity of the world's greatest desert to the dense forests of an equatorial belt where the rainfall is excessive and the heat and disease-bearing insects make it unhealthful for white men whose official duties compel them to visit these regions. The Belgian Congo is discussed in the article *In the Heart of Africa*. French Sudan, which lies between French Congo and the Sahara, comprises Senegal, French Guinea, the Ivory Coast, Dahomey and several military territories; and French Somaliland lies straight across on the east coast. Since we have millions of square miles to cover in a short space, we will make the mental journey by aeroplane; for air routes are fast being established in French (as well as British) Africa, with air bases at points where a landing is feasible.

AFRICA has been the scene of the most extensive French overseas expansion, which began as early as 1365 when the Norman sea-faring folk of Dieppe explored the west coast of the dark continent, establishing trading stations in Senegal and Guinea. These expeditions were not backed by national support, although they enriched a dozen ship-owners and these practically founded the French mercantile marine. For a period the foothold in Senegal was lost, but had been recovered by 1637, and the nineteenth century saw considerable further expansion. Finally, after the World War, France made some gains where Germany had lost. Other articles deal with the Arab and Moorish peoples of French North Africa, which, separated by desert and mountains, is Medi-

terranean rather than African in its geography. Another article treats of Madagascar, with Mayotte and Réunion islands off its coast. This one will include French Somaliland on the east coast, the Sahara (mentioned in another

volume as one of the world's great waste lands), and in particular, French West Africa. This since 1921 has included not only Senegal but a fringe of small colonies around the Atlantic coast—French Guinea and the Ivory Coast (two long strips reaching into French Sudan), Togo and Dahomey. (squaring off a corner of the Military Territory of Niger), Upper Senegal-Niger—which constitutes French Sudan; Upper Volta, just inland from the (British) Gold Coast, and Mauritania, north of Senegal. There is also French Equatorial Africa, until 1910 known as



A DAUGHTER OF AFRICA

The elaborate headdresses of the women of the proud Fulah race in French Sudan prove them to be as ardent devotees of fashion as their cultured white sisters.



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WANDERERS IN THE DESERT of North Africa wear long robes of white, and thick white turbans to shield them from the scorching sun that beats down unceasingly from dawn to dusk. The Sahara is not all sand. There are great stretches of wilderness strewn with bowlders, and there

are high rocky mountain ranges. It has not always been as dry as it is now, for we sometimes see what is obviously the bed of a vanished river, and in other parts come across flat land encrusted with salt. The French have brought many sterile districts under cultivation.



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AN OASIS IN THE SAHARA seems a veritable paradise to one who has for days seen nothing but stretch upon stretch of burning, shifting sand or rocky waste. Sometimes, when crossing these desert sands, a traveler sees before him a pool of water ruffled by the wind. He hurries

forward to find, when he nears the spot, that there is nothing. He has seen a "mirage." This used to seem like magic, but now it is known that what he has seen is the reflection of a distant cloud, and that it is caused by the radiation of the heat from the sand.

French Congo, a country not unlike the Belgian Congo described in *In the Heart of Africa*. The narrow strip known as French Cameroon is held under a mandate of the League of Nations. In general this vast region, shown white on the map that follows, is an area too hot for white men. Either it presents the rock-strewn aridity of much of the Sahara, or the excessive wetness of the dense, vine-strangled forests to the south. There are but few hill regions so numerous in British Africa; yet it is populated, in places densely, by black tribes whose heavily pigmented skins protect them from the sun's ferocity.

If we are to get a bird's-eye view of a great continent on which railways are still a novelty, harbors few and waterways not too accommodating, we will make our imaginary exploration by aeroplane. As recent birdmen have discovered, the air routes are sufficiently hazardous to keep our hearts in our throats; for at noon above the desert, spouts of hot air, tawny with dust, may rise and only the higher altitudes are safe from the bumps and down-drafts they cause.

Dangers of Air Travel

Over Central Africa we must be on the lookout to outrace the terrific thunderstorms that come sweeping across the sky, while beneath us lie forests so dense that, when airports are made, it is necessary to fell and uproot the great trees by the hundreds. To pass eastward to the shores of the Indian Ocean we must cross above two great Rift Valleys, cracks in the land mass filled with lakes and waterways from Lake Nyasa to the Nile and to the Red Sea. There are massive highlands through East and South Africa, and high country across Cameroon and Northern Nigeria, but the Congo Basin lies in a great depression and the Sahara is in places (where it was once inundated) actually below sea level. Yet even this vast desert has the Ahaggar (Hoggar) Mountains, rising south of Algeria to as much as eight thousand feet and extending into the naked Tibesti or Tu Highlands, which in past

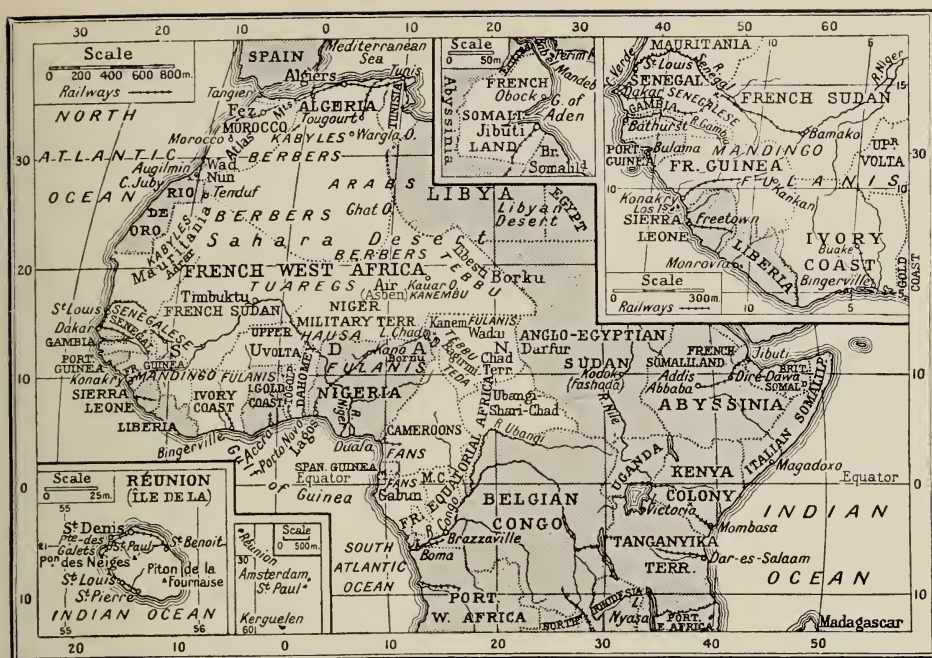
ages formed a bridge across the sand; and stony wastes by which animals migrated from north to south. West Africa, however, has few mountains, though the Futa Jallon form the watershed of the Niger, the Senegal, the Gambia and other important rivers, and the Bauchi plateau, Africa's great tin area, rises in Northern Nigeria and Cameroon. The climate, so near the equator, varies rather in the amount of rainfall and the sharp change from noon to night rather than by seasons.

Oases and Camel Caravans

If we have flown from, say, Morocco across the Sahara, our first surprise will be to find, amid the stony red expanses and the white seas of sand dunes, occasional oases, green with date-palms, and inhabited by villagers, who offer succor to camel caravans en route to Timbuctoo and elsewhere. The oases are strung along the depressions where water rises to the surface, and these determine the great trade routes. The French have shown great zeal in digging wells and placing such favored spots under cultivation. Indeed, French engineers plan extensive reclamation of the waste lands. France holds about three-fifths of the Sahara, much of which is still unexplored. That it has been in the main waterless for centuries is evident from the Arab name "Sahira," which itself means desert. Yet ancient dry watercourses indicate that the region may not always have been so desolate as it is to-day. While the major portion of the French Sahara is rocky, in the western part there is sand which often piles up into dunes a thousand feet high; and when the swift hot winds come sweeping along, they carry this sand in clouds, burying the thorny dwarf plants—until another sandstorm shall uncover them—and stifling men and caravan animals.

Timbuctoo of Desperate Deeds

In the southern part of this desert not far from the Niger lies Timbuctoo (Timbuktu), a Negro town of mud walls and dwellings which has ever been, and still is, an important trade centre of the cara-



FRENCH LANDS AND PEOPLES IN AFRICA

van routes from Morocco, Guinea and elsewhere. To-day it can also be reached by motor car routes and the French are extending a rail service to connect this point with other commercial centres. The Negroes of Western Africa, be it mentioned, are a different stock from the Bantu peoples south of Cameroon, though both are primitive.

In the eleventh century the Tuaregs, a nomadic people of Berber origin, occupied Timbuktoo, and left a long record behind them of oppression and slavery, robbery and desperate deeds. Now there lived along the Upper Niger a Sultan Samory, a slave-raider who had formed a brigand empire and sold probably a million and a half Negro captives to the Tuaregs in exchange for gold, ivory and cattle. These Negro slaves were called black ivory, and as the region abounded in the big-eared African elephants, there was much slaughtering of these beasts for their tusks of white ivory, and processions of naked slaves used to be sent to market carrying these tusks upon their shoulders. In 1880 a French captain of marines, Joseph Simon Galliéni (the same who distinguished himself in the World War), was captured by Sultan

Samory and held prisoner until another French force had overcome the many ferocious small tribes of mixed Berber and Negro stock and imposed peace on the region, rescuing Timbuktoo from the rule of the Saharan Berbers. But by 1888 Galliéni had broken into Western Sudan and defeated Sultan Samory, who was, however, not captured until 1898. Although Timbuktoo is ranked as a Sudanese town, it has been, since 1923, a civilian territory.

Now let us view the parched and stony (and in part mountainous) wastes of the French Sudan. Circling above it, we see to the eastward a shallow great expanse gleaming like a steel mirror in a green frame. That is Lake Chad, which during the rainy season may spread to twenty thousand square miles in area, although during the dry season it shrinks to half that. Yet practically nowhere is it ever more than fifteen feet deep. The silver loops of two-thirds of the Niger River and all of the Upper Senegal lead our eye westward. These rivers grow with the rains of July to October until the Niger can accommodate small steamboats, though for five months or more it is too shallow. The lesser streams dry up, and



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DATE PALMS are the chief trees of the Saharan oases, and they provide the staple food of the desert tribes. Sometimes an oasis is merely a grove of palms around a well; sometimes, when the water is supplied by a stream, it is larger and more luxuriant and fruit and grain may be grown. An oasis may include a permanent village or even a small town.

their beds become overgrown with shrubs that grow like wildfire in that equatorial climate. The name Sudan literally means Land of the Blacks. French and Anglo-Egyptian Sudan together were for long a conquest of Turkey, which ruled it despotically through Egypt.

To turn southward for a short inspection, French merchants settled by the Gabun River above the Congo as early as 1839, and after the opening of the Belgian Congo, as described in the article *In the Heart of Africa*, the French secured a part of the Congo basin. Here it was that Du Chaillu discovered the gorilla. This and other parts of French Africa are amazingly rich in wild game—herds of elephants, with tusks heavy enough to employ four porters each, herds of vicious buffaloes, droves of vividly striped zebras, thick-skinned rhinoceri and clumsy hippopotami along the waterways, many varieties of the monkey tribe in the forests, herds of ostriches in the southern Sahara, to say nothing of the bright-striped zebras of the grasslands, lions, leopards, antelopes, giraffes and crocodiles.

Wild Berbers Tamed

Now if we are to continue our journey in logical order, we will fly from Timbuctoo across to the west coast of the Sahara, to Mauritania, which became a French protectorate in 1903, and a colony in 1921. Here live numbers of Moorish Mussulmans of Berber origin whose men-folk wear veils over their mouths and noses to protect them from the sand. Though caravans once feared their name, such has been French influence under a colonial policy that makes them look upon the French flag as their own that these famous fighters came forward in large numbers during the World War to fight for the mother country—irony of fate, since it was Bismarck who had induced the French explorer, Jules Ferry, to go empire-building in Africa!

Proceeding southward along the coast to Senegal, we will find a new air-base there, in the colony from which Ferry started to the Upper Niger when he

claimed this valuable territory for the French. Senegal is a region of sandy soil where the natives eat ground-nuts and cultivate corn, rice and millet, weave, and make pottery, as well as heavy jewelry of pure silver and gold, ivory and amber. There is a river service, during the rainy season, down the Senegal to the port of Dakar, one of the chief entries to French Sudan. This serves an industry based on the salt of certain desert areas of the interior.

The Several Guinea Lands

Senegal is really the first of a series of coastal approaches (by means of either rivers or railroads) to the interior plateaus which are often called the Guinea Lands. Some of these belong to other European nations than the French: all have much the same character, whether in French Guinea, so-called, the Ivory Coast, Dahomey, the Military Territory of Niger or Cameroon. We find a flat country frequently separated from the ocean by sand-spit and marsh and infested by myriads of malaria-bearing mosquitoes and tsetse-flies which cause sleeping-sickness. The products are similar in all of these little colonies—bananas, pineapples, rubber trees, cattle around the hills of Futa Jallon, gold on the River Timkesso, and a vastly promising potentiality for raising cotton. The natives are shiny black and kinky-haired, fond of music and dancing and not too inclined to tax their energies in work during the long hours of heat.

Many Enormous Swamps

All the way from the mouth of the Senegal to the mouth of the Congo, a region visited by heavy rains (at one place 390 inches in one year), there are large rivers rising in the hills and emptying into the Atlantic; and while these are at times broken by rapids, they are highways for native craft and small launches. But the coast is also characterized by mangrove swamps, and off the Bay of Biafra in the Gulf of Guinea is a colossal swamp into which more than twenty rivers discharge their silt. Here the oil-



McCann

SHAPELESS MASS OF CLAY TAKING FORM BENEATH DEFT FINGERS

The natives are all clever at pottery work. This woman uses no machinery. She employs only the crude stone mold that we can see by the three bowls. The mold is placed inside the roughly shaped piece of clay to help the worker in smoothing and forming the vessels. It is extraordinary how little the finished articles differ in shape and size.



GLIMPSE OF THE NATIVE QUARTERS IN JIBUTI
The importance of the colony is due to Jibuti, with its fine harbor and railway line which penetrates to Addis Abbaba, the capital of Abyssinia. Trade is the chief occupation both in the European and in the native quarters; aromatic spices are products of the country, for Somaliland

(DJIBOUTI), SEAPORT OF FRENCH SOMALILAND

still remains the "Regio Aromatifera" of the ancients, supplying the world with myrrh, frankincense and balsams. The salt industry is an old one, and salt mines were opened in 1912 which yield thousands of tons yearly. There is also mother-of-pearl fishing along the coast.



MAYUMBA'S BEACHES FRINGED WITH PALMS WHERE THE ATLANTIC THUNDERS ON THE SHORES OF THE FRENCH CONGO district. French Congo, or French Equatorial Africa, with which it has since been included, has a total area of some 480,000 square miles. There are great areas suited to stock-raising, while the enormous forests covering over 30,000 square miles are capable of wide exploitation.

palm flourishes, the coconut, palm, bamboo and rubber-bearing plants provide material for export, the extensive cultivation of cotton is a dream of the future. The forests are valuable for their mahogany, cedar, ebony and other rare trees, although these are usually linked together by lianas and difficult to lumber.

The Ivory Coast has two great lagoons connected with one another by a canal, Grand Lahou and the port of Grand Basam, with a lagoon over one hundred miles long and twelve feet deep, with jetties built to avoid the sand-bar at the harbor entrance. This opens up a region of pineapple and cocoa plantations and wild inland mahogany forests.

Dahomey reaches inland from primeval

forest across the great Lama swamp (now crossed by rails) to the rich grasslands or savannahs, interspersed by fresh-water swamp forests, where the huts are made of grass, and palm oil is extracted for market. On an inland plateau stands Abomey, the scene of the notorious "Customs" when, annually, scores of human victims were sacrificed to the ancestral spirits, that they might serve them in the beyond. The dominant people here are the polygamous Ffon (Fons, Jejs or Jefe), Negroes of the Ewe family, an offshoot of the Bantus, ranging from chestnut to a yellowish tinge and possessed of unusual keenness as traders. The lagoon port of Whydah (Hwedah), since annexed by France, was originally Portu-



J. R. Birtwistle

ART SERVES RELIGION: DAHOMIAN SCULPTOR CARVING A FETISH

Fetichism is not idolatry, but a belief that the services of a spirit may be appropriated by possessing its material embodiment, and a fetish thus is a useful spirit in its proper shrine. This devout Dahomian is making a clay image for presentation to his fetish priest, using the beak of a slain fowl to carve the features.



INDUSTRY FETTERED BY IGNORANCE: NATIVES MAKING PALM OIL

Palm oil is the principal industry of Dahomey; the oil-palm grows wild and is also cultivated. The natives crack the nuts by hand to obtain the kernels—a slow process which is being replaced by mechanical crackers—and their primitive method prevents them from getting more than about seventy per cent of the possible yield.



RUE NATIONALE IN RUFISQUE, ONE OF SENEGAL'S CHIEF PORTS

The colony and protectorate of Senegal is the oldest African colonial possession of France. It lies south of the Senegal River in a hot and unhealthy zone and its chief towns, St. Louis, Dakar and Rufisque, are all on the coast. Ground-nuts are exported mainly from Rufisque, which has special accommodation for handling them.



Fortier

BLACK JUSTICE MOVES WITH MEASURED TREAD IN SENEGAL

In the chief town of every province of French West Africa there is a native court of justice composed of the chief of the province with two of the notables to assist him. These native judges conduct their sessions with leisurely solemnity, and there is a patriarchal atmosphere about their courts, which frequently sit in the open air.



DESERT DIGNITY ARRIVES ON CAMELS AT TIMBUCTOO

Pastoral nomads of the Sahara, the Tuaregs, are Islamized people of Berber stock, with good qualities and distinctive institutions. Many are excellent craftsmen in metal and leather work, hand pottery and weaving. This photograph shows petty Tuareg chiefs arriving at Timbuctoo to have a palaver with the French authorities.

FROM SENEGAL TO SOMALILAND

guese, and Portuguese names are borne by many of the natives. Here the French built the first fort in 1671, at a time when the kings of Hwedah derived vast riches from the dues levied on the export of slaves and ivory. In 1777 Whydah was conquered by the king of Dahomey because the Whydahs, who were fetish worshippers, had placed nothing but their great fetish Dahn, a carved serpent, to guard a strategic ford, and it happened that the Dahomey leader feared only his own fetish, a panther. His king, Agaja

Dosu, has been called a Tamerlane in miniature. Dahomey's neighbor, Togo, rising to hills between three and four thousand feet in altitude, smelts iron as well as cultivates large plantations.

French Somaliland, finally, directly eastward of the Anglo-Egyptian portion of the Sudan, has hardly enough inhabitants all told to make a city, though they are a cosmopolitan assortment—Sudanese, Somali, Arabs, Abyssinians, Indians, Jews and others. There are salt mines, coast fisheries and some trade.

FRENCH AFRICA: FACTS AND FIGURES

FRENCH SOMALILAND

Small colony lying between the Italian Colony of Eritrea and British Somaliland on the east coast. Total area, about 5,790 square miles; population estimate (1928), 85,778. Administered by a Governor assisted by an Administrative Council. Fishing and trading important. Chief exports: coffee, ivory, hides and skins. Seat of government, Jibuti (Djibouti); population (1928), 9,414.

FRENCH WEST AFRICA

A Governor-General, assisted by a Council, directs and controls the interests of all the colonies in French West Africa; each colony directly administered by a Lieutenant-Governor, the Circle of Dakar and Dependencies under a Governor of Colonies. There were 698 schools of all kinds in 1927-28 with 43,955 pupils. The seat of the general government is at Dakar (Senegal), population (1926), 33,697. The colonies are:

Senegal. Total area, 74,112 square miles; population in 1926, about 1,318,287. Represented in French Parliament by a deputy. Agriculture and stock-raising important occupations. Chief exports are ground-nuts, hides and skins, rubber and gums. Railway mileage, 600; length of telegraph line, 4,860 miles; telephone line, 408 miles. Interior communication by river. Population of chief towns in 1926: St. Louis (capital), 19,746; Dakar, 33,697; Rufisque, 8,953.

French Guinea. Total area, about 92,640 square miles; population in 1928, 2,185,697. Agriculture and stock-raising important occupations. Chief exports: palm products, rubber, ground-nuts, hides, cattle, bananas and animal wax. Railway mileage, 412; length of telegraph line, 2,220 miles; telephone, 410 miles. Capital, Konakry. Adjacent to French Guinea is Portuguese Guinea with a total area of 22,000 square miles and a population of 350,000, estimated. Bolamo is the capital.

Ivory Coast. Total area, about 121,976 square miles; population, 1,724,545. Agriculture important; coconuts and rubber are collected, and the mahogany forests worked.

Chief exports: cabinet woods, rubber, cacao, palm products and cotton. Railway mileage, 304; length of telegraph line, 2,166 miles; telephone, 134 miles. Chief towns: Bingerville (capital), Grand Bassam, Abidjan, Grand Lahou, Sassandra and Tahou.

Dahomey. Total area, about 62,772 square miles; population in 1927, 1,057,260. Corn, manioc, yams and potatoes are cultivated. Chief exports: palm kernels and oil and cotton. 495 miles of first-class road; 248 miles of railways; 2,045 miles of telegraph line and 560 miles of telephone line. The seat of government, Porto Novo, has a population of 27,000.

French Sudan. Total area, 360,331 square miles; population (1927), 2,632,618. Agriculture and stock-raising important. Chief exports: ground-nuts, cattle, rubber and gums. Complete telegraph system; railway communication with the coast. Population of capital, Bamako, 24,041.

Colony of the Upper Volta. Total area, about 142,000 square miles; population (1926), 3,029,105. Economically, industrially and commercially it possesses the same characteristics as French Sudan. Population of Ouagadougou, administrative centre, 10,000.

Mauritania. Total area, 347,400 square miles; total population, about 289,484, chiefly Moorish Mohammedans.

Colony of the Niger. Estimated area, 404,914 square miles; population (1928), 1,427,536. Agriculture and stock-raising important. Chief products, millet, sorghum, manioc and dates. Niamey is the capital.

FRENCH MANDATED TERRITORY IN AFRICA

Togo. Former German territory now divided between France and Great Britain. French area, 21,893 square miles; total population, about 747,450. Lome is the seat of administration.

Cameroon. Former German territory now divided between France and Great Britain. Total French area, 166,489 square miles; population (1926), 1,878,683. Seat of government is at Yaoundé.

'TWIXT THE DESERT AND THE SEA

Algeria, Tunisia and Tripoli and Their People

In ancient times the Phœnicians and the Romans, then the Vandals, and later the Arabs and Turks, all left their mark upon these lands, which are bounded by the vast Sahara Desert on the south and by the Mediterranean Sea on the north. After being more or less united under the Arabs, the territories of Algeria and Tunisia became semi-independent and were known as the Barbary States from the Berbers. Tripoli was eventually included within the Turkish Empire, as was Tunisia for a short period. Pirates and slave-traders from the ports of Algeria and Tunisia preyed upon European shipping until the early part of the nineteenth century, and it was owing to their activities that the French turned their attention to North Africa, where they now possess a vast colonial empire, which includes Algeria, Tunisia and most of Morocco. Tripoli was wrested from the decaying Ottoman Empire by the Italians in 1912, so that fifteen centuries after the extinction of the old Roman power, Roman legions—if we may so describe the Italian armies of to-day—once more have brought ordered rule to the Berbers and the wilder tribes of the desert who long lived and fought in this part of North Africa.

THE desert wastes of North Africa might be likened unto quicksands, for old civilizations, religions and cities have been engulfed by those fine, tawny particles that trickle through one's fingers like water. When an animal lies down to die in the desert, its burial is assured: the wind-driven sand eddies over and about it till there is only a mound to be seen. And the sand has treated great cities and civilizations in the same way.

Nearly three thousand years ago, Phœnicians and exiles from Tyre founded the famous city of Carthage near modern Tunis. A race of merchant seamen, they united martial skill with a genius for trade. Their fleets returned laden with slaves and their caravans with gold, and their armies were recruited from every country bordering on the Mediterranean Sea. To-day, but little of their stronghold remains, and their gods, Moloch and Melkarth, are only half-forgotten names.

Out in the trackless desert, Roman cities lie buried. Their wharves are now a two days' journey from the sea, and their oil-presses are a hundred miles from the nearest olive grove. At Timgad, in central Algeria, there is a gaunt, ruined, sand-swept city which has been deserted for centuries, and broken columns are the only relics of a vanished civilization.

In the seventh century A.D. the Mohammedan conquerors swept across the

Libyan Desert, through Tunisia and Algeria, and into Morocco. Carthaginians, Romans, Vandals and Byzantines—all had contributed something to the land that eventually became an Arab stronghold. About ninety miles from Carthage, the Arabs, or Saracens, built their mysterious, forbidden city of Kairawan. Then it was that Tunis once more became the centre of culture.

Arab genius kept alight the lamp of learning, while Europe yet awaited the passing of the dark ages. The courts of the North African potentates were filled with poets and musicians, and the colleges with learned men. Then the flame died. The books of the philosophers and chemists were burned in order that the Koran might remain unquestioned, and the golden age of Arab culture passed, as other civilizations have done.

For centuries these lands were in an almost continuous state of war with one or another of the European powers, because their ports sheltered swarms of pirates and slave-traders who boldly seized merchant ships or even small war vessels, confiscating all property and holding for ransom the captives. It came about that most of the nations of Europe were paying large tribute to these Barbary States in order to be free from their piratical attacks. After the American Revolution, when the United States, no



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HEAVILY TILED HOUSES OF A KABYLE VILLAGE THAT CROWNS A HILL-CREST IN THE ATLAS MOUNTAINS

The Kabyles is a name loosely applied to a tribe of Berbers who live among the Atlas Mountains, especially in those districts of Algeria, known as Great and Little Kabylia, where the mountains rise most abruptly from the sea. These people build their houses, for security's sake, upon the crest of a hill, the slopes of which are often well cultivated. They are skillful and artistic folk, for possessing no machinery—not even a potter's wheel—they make beautiful articles of metal and leather, and pottery elaborately shaped and colored.



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LONG-ROBED BUYERS AND SELLERS OF CAMELS NEAR A VILLAGE THAT LOOKS OVER THE GREAT SAHARA

There are many streams running southward from the Atlas Mountains into the Sahara, but most of them flow underground and the others very soon dry up. The subterranean ones can be tapped by means of wells, and wherever there is such a well, the hardy palm trees will grow. That

is why this view of the sandy desert into which southern Algeria merges is so, checkered with clusters of dark foliage. In other places desert soil is rock or hard clay and is entirely barren. Sandhill districts are known as the *areg*, or *erg*; the other regions are the *hammadas*.



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BEDUINS AT PLAY IN BISKRA, THE QUEEN OF ALGERIAN OASES

The beautiful oasis of Biskra lies at the edge of the sea of sand that is the Sahara and just beneath the clifflike walls of the Aures, the southernmost range of the Algerian Atlas. It is watered by a stream, and careful irrigation has enabled its palm groves, fruit orchards and cornfields to stretch for miles. Biskra is famous as "The Garden of Allah."

longer under the protection afforded by Great Britain's tributes, sent a fleet to force the plunderers to peaceful ways, other nations did likewise and eventually the rulers promised to reform their countries. But the old Arab genius was lacking, and another country gradually assumed control in Algeria and Tunisia.

It was the French who seized this opportunity of acquiring a vast colonial empire, and they have done much of which to be proud. Their roads and railways in Algeria and Tunisia stretch from the Mediterranean to the Sudan, and all North Africa, save Tripoli, Egypt, and a small part of Morocco, is theirs. Time alone will show whether their work will be lasting or whether their roads, railways, irrigation systems and towns will disappear in turn.

Old Pirate-town of Algiers

Algeria, one of the old Barbary States, lies between Morocco and Tunisia, and its chief port and capital is Algiers, once notorious for its pirates. Algiers is an example of the renewed prosperity of North Africa. Its wharves are crowded with ships loading their cargoes of grain and tobacco; its palm-shaded streets echo with the rumbling of heavy lorries and tram-cars. Shops such as we might expect to find in Paris cater to wealthy citizens, and merchants and tourists of all nationalities may be found in its palatial hotels.

Algiers might be compared to a tumbledown house in which the drains have been repaired and the lower floors rebuilt, while the ancient attics remain the same. The attics of the town are the pirate town. Gleaming white against the blue of sky and water, it climbs above the mansions and the wharves of the intruders, and from a distance it looks like a pile of ivory dominoes. Each little flat-topped house seems to be peering over its neighbor, and at the summit is the Kasbah, the fort of the old Arab rulers.

Hidden Beauties of the City

Less than one hundred and fifty years ago the sight of a strange sail on the

horizon would cause these roof-tops to be crowded with excited people. Was it a pirate ship returning laden with plunder and slaves? Or was it the fleet of Spain, France, Great Britain, or the United States coming to batter at the walls with shot and shell?

The old town is without a real street, and its winding alleys are closed to all save pedestrians and little, laden donkeys. Many of the houses are built over these alleys, up which climb white-clad Arabs with slippered feet. Blank, white-washed walls line these narrow ways, for the houses, like the Arab women, hide their beauty. Inside them we should find cool courtyards in which fountains play, and carved balconies overlooking the enclosures. Beautiful tiles cover the walls, and the plaster is molded into intricate patterns.

The bazaars of Algiers are fascinating places, in which the old life of the town can be seen. The shops are little booths raised from the ground, at which the owners sit cross-legged waiting for their customers. There are shoemakers' shops, where the wizened craftsmen sit stitching at heelless colored slippers. On all sides are piles of slippers of every hue, tasseled and embroidered in scarlet and green silk.

Fair People of the Algerian Hills

Here is a jeweler working with such tools as were used in Harun-al-Rashid's Bagdad. There are metal-workers, hammering brass into the most delightful bowls and boxes; and through the throng moves the itinerant water-seller, and the Maltese who has wandered up from the French town to sell picture postcards to tourists. With their usual instinct for commerce, the Jews have penetrated deeply into the business life of Algiers. They own many of the booths, but because they are not popular, they generally trade under Arab names.

From the old town can be seen the wooded slopes of the hills, where the Kabyles, or Berber Arabs, live. They are a distinct race of people and are the descendants of the original inhabitants.



© Crête

HOPING TO LOOSEN PURSE-STRINGS BY MEANS OF PATHETIC AIRS

Just as people in this country play the fiddle or turn the handle of a hurdy-gurdy at the pavement's edge to get pennies from passers-by, so in the streets of Algeria we shall find Negro musicians strumming on curious instruments of home manufacture. Coin-decked dancing girls are there, too, who are called Ouled Nails, and travel from town to town dancing in the open street, in the pasha's harem or in the native cafés.



McLeish

LITTLE ARAB WHO ONE DAY MAY LEAD A DESERT CARAVAN

This small son of the desert shows in his expression some of the dignity and aloofness that is characteristic of his race. His embroidered and tasseled cap, striped cloak and leather shoes prove him to be the son of a rich man. It is quite possible that his father is a trader, who has many times led a caravan on the arduous journey across the desert to Timbuktu, the terminus of one of the three great Sahara trade routes.



© Crété

LADY OF ALGIERS GIVING AN ORDER TO HER GREENGROCER

The busy city of Algiers is divided quite definitely into two parts, the old Arab and the modern French towns. We do not need to be told where we shall find this narrow street, which is little more than a flight of steps, with tiny shops on each side. Up and down it mysterious female figures wrapped in shapeless garments noiselessly pass and repass.



Perrin

LIKE ALGIERS, TUNISIA'S CAPITAL HAS A NEW TOWN AND AN OLD

The old quarter of Tunis is picturesque in the extreme, with its narrow streets, glorious mosques and wonderfully stocked bazaars, which are known here as souks. Here in the Souk des Etoffe we see some of the beautiful things that we can buy in the dark little shops—hand-made rugs, the rich colors of which do not fade even under an African sun.

Many of them are fair. They are farmers and graziers, and on the hillsides are fields, pastures and orchards.

Agriculture is flourishing in Algeria, for the French encourage farming by developing irrigation schemes and many French farmers have settled there. Although the natives use the most primitive methods in working their farms, they produce large quantities of wheat, barley and oats, a variety of vegetables, tropical fruits and tobacco, most of which are shipped to France to keep the markets

supplied during the winter months. From the grapes, which also grow luxuriantly, large quantities of wine are made. The fertile part of Algeria is a narrow strip of land bordering the sea; farther south and running parallel to the coast, there are the high plateaus of the Atlas Mountains, which extend to the waste of sand and rugged hills on the northern edge of the Sahara Desert.

Traveling through Algeria, we shall see orange groves, cornfields and the red-roofed farmhouses of settlers. In places



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IN THE STREETS OF KAIRAWAN once a forbidden city to all "Un-believers," we may now wander without hindrance. We may even go into the mosque, a thing we can do in no other Tunisian town. This is strange when we consider that Kairawan is, after Mecca and Medina,

the most sacred city in the eyes of the Mohammedans. In 1881, the French forced an entry through one of the five gates in its walls and much of its sanctity was destroyed. Although now connected by railway with the coast, it has been little modernized and is still essentially Arabian.



ALGERIAN GIRLS are often quite beautiful, as witness this jewel-decked Kabyle who so proudly displays the charms of her person and raiment. The beauty of the women-folk—a beauty they lose very early—is not surprising considering the thousands of lovely girls who were captured by the Barbary corsairs and were brought back for the Algerian harems.



© Crété

TWO GAILY CLAD BLACK GIRLS OF THE NORTHERN SAHARA

The people who dwell in Algeria are of many races. In addition to the native Berbers, there are, for instance, Arabs, who came originally from the East, Europeans from the North, Negroes from the South, and half-breeds who are a mixture of all these races. These little Negresses dwell in one of the low huts of sun-baked mud that form an oasis village.



McLeish

THREE SHAMELESS LITTLE BEGGARS IN A STREET OF TUNIS

All over the East—and the Barbary States are thoroughly Eastern in character—we shall find that beggars, both young and old, are considered to follow quite a respectable trade. These happy-appearing little urchins of Tunis, though they are clad in rags, it is true, certainly do not seem to be in want—yet they impudently demand alms of all who pass by them.



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THE AFRICAN MECCA, the holy city of Kairawan, is in Tunisia and stands in a wide plain that was once covered with gardens and olive and orange groves. It is now barren except for a scrub of sage, though the soil is fertile and water is not wanting. When, in 670, Sidi Okba,

a great Moslem soldier wished to found, in Africa, a city that would be the rallying point for the Mohammedans, he is said to have stuck the butt of his lance in the ground in the middle of what was then a forest, and said "Here is your Kairawan" (resting-place), thus naming it.



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THE GATE OF THE DESERT towards which we are looking from the Saharan side is very fittingly-named, for the train that carries us to Biskra has been running for hours through narrow mountain gorges, and, by means of tunnels, through chain after chain of bleak desolate

mountains. Suddenly it issues from a tunnel into the gorge of El Kantara—"the Gate of the Desert"—and nothing but flat desert lies before it. The palm trees, the crumbling wall and the mud house are in the oasis of El Kantara. The mountains belong to the Aures system.

we may see herds of camels grazing on the hillsides. The Arabian camel is used throughout North Africa, and without him commerce and travel would be almost impossible, though motor cars are being used more and more.

Situated on a rock over two thousand feet in height, which is cut off from the surrounding country on three sides by a beautiful ravine is the city of Constantine, aptly named by the Arabs "the city of the air." It is an ancient city rebuilt by Constantine the Great in the fourth century on the site of a Roman colony. Since the coming of the French, new streets have been laid out and many fine buildings constructed, but the native quarter with its winding lanes and squalid flat-roofed houses, remains truly oriental.

Algeria's Largest Oasis

From Biskra, an oasis noted for its beauty, we can take a peep at the desert. The town is a great meeting place for the desert people, and if we stay there long enough we are almost certain to see representatives of all the tribes inhabiting the Sahara. Biskra is well-watered by underground springs, and hundreds of thousands of date-palms grow in the neighborhood. There are half a dozen Arab villages in the Biskra oasis, but the town itself is a curious mixture of ancient and modern, for its delightful winter climate has made it a popular resort with several fine, modern hotels.

In a shady corner we may come upon an old marabout, or holy man, tracing figures in the sand. He has charms and amulets—pink coral to avert the evil eye, the hair of a four-months-old baby for protection against scorpions, verses from the Koran sewed into leather bags, and many others. He earns his living by selling these charms to the superstitious Arabs. Past him hurry energetic tourists, equipped with guide-books and sunglasses, and accompanied by a Negro in a ragged goatskin cloak.

In the Tunis of To-day

When the Phœnician mariners first sailed into what is now known as the

Gulf of Tunis they saw on the horizon the symbol of their deity Baal, the Horned God—a happy omen, which, we may be sure, was not lost upon the founders of Carthage and Tunis. And to-day the pine-clad pinnacle of Bou-Cornein, which in Arabic means "the Father of Two Horns," is the most conspicuous landmark on the coast. It is so called because the summit is curved, forming two horns.

Tunisia is the most easterly of France's African possessions and in many ways it resembles Algeria. The wealth of both lies in a comparatively narrow strip of fertile coastal land, which on the south is succeeded by mountainous country and desert. Phosphates are found in Tunis, and at Gafsa there are extensive workings, where hundreds of Arabs are employed in digging and blasting the precious mineral.

The white city of Tunis lies on the Bay of Tunis, across which, at sunset, the red flamingoes fly to their homes among the reeds. People of all nations rub shoulders in its streets and boulevards, and the flags of many nations fly upon the ships in the harbor.

In the Perfume Bazaar of Tunis

In Tunis there is a street as fragrant as a flower garden. This is the perfume bazaar, where the scent of thousands of roses is imprisoned in little crystal vials. Each perfumer sits in his little cupboard of a shop, which is raised several feet from the ground, and the air is heavy with the mingled perfumes of orange blossom, attar-of-roses and verbenæ.

These sellers of perfumes claim descent from the Moorish aristocrats who were driven from Spain in the fifteenth century. Often their most treasured heirloom is the key of their ancient castle in Spain, which, it is to be feared, is sometimes as legendary as the proverbial ones.

The Arab shopkeeper is a man of leisure. His booth is his bed and there he dozes, drinks coffee and prays occasionally. He seems indifferent to custom and puts more faith in Allah than in



RELIC OF ROME'S TRIUMPHANT CAMPAIGN IN TRIPOLI

This four-fronted triumphal arch of carved white marble, still beautiful though half destroyed, is named after the Roman Emperor Marcus Aurelius, who completed it. Its appearance with a wooden protective roof is curious; originally it was probably half as high again, and more dignified. Tripoli, the Oea of the Phoenicians, is one of the old cities of Africa.



© E. N. A.

THE DATE HARVEST is of great importance to the oasis-dweller, for dates are his chief food and his chief article of commerce while the branches are used for thatching his buildings. The golden-brown fruit, hanging in heavy clusters is cut down in the autumn, and the sorting, storing and packing them keep men, women and children busy for weeks.



WHITE TUNIS—Tunis la Blanche—lies spread out below the muezzin, who, from the gallery of the minaret, turns his face to the east and calls the Faithful to prayer. Tunis is a beautiful city lying beside a shallow lake that is connected by a strait with an inlet of the Mediterranean. The ruins of ancient Carthage lie only a few miles away.



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IN CONSTANTINE, third city in Algeria, we shall find many wonderful examples of Moorish architecture, but none will please us more than the building that was formerly the palace of the beys of Constantine, with its sunny galleries, graceful arches and colored tiles. This is one of the historic buildings of the old town. Parts of it date to 1232.



Home

TELEGRAPH WIRES LOOK OUT OF PLACE IN ANCIENT TRIPOLI

Slender minarets break the monotony of flat-roofed, whitewashed houses in the native quarter of Tripoli, the capital of Italy's colony of the same name. This cobbled street, lined with dilapidated-looking shops, is the Strada della Marina. The Mediterranean Sea washes the city walls on the north; the sands of the Sahara almost touch them on the west.

advertising. The Jews and the Maltese, on the other hand, possess the more modern spirit and do not hesitate to pester any likely or unlikely customer.

The city of Kairawan, in Tunisia, is considered by Mohammedans to be one of the holiest cities in Africa, being sometimes known as the "African Mecca," and is visited by many pilgrims. Roman cities fell that Kairawan might rise, for, as it was built soon after the Arab conquest, it was largely constructed of pillaged Roman masonry. Temple cornices are built into its walls, and its foundation stones are the altars from the temples of pagan gods.

In 1912, Italy wrested Tripoli from the Turks, so that, after many centuries, Rome once more rules vast stretches of these desert sands. Tripoli was once one of the granaries of Europe. Cornfields and olive groves covered the land. Then, like a plague of locusts, came the Arab

invaders, and Tripoli was a granary no more. "Whence comes this wealth?" asked an amazed Arab general of a captive. "From this," answered the man, pointing to an olive lying in the dust.

Tripoli, or the Italian Libya, has been divided into two districts. The western part bordering on Tunisia and Algeria is named Tripolitania and that which joins Egypt on the east is called Cyrenaica. Tripoli, the capital of the first named is the largest city and is called by the Arabs, the "white city." Before the Italians came the streets were filthy and the inhabitants were afflicted with fever and cholera. Now it is as healthful a town as any in North Africa. Around Tripoli there are many primitive wells, where patient oxen, walking backward and forward, bring to the surface goat-skins brimming with water. The great curse of agriculture is the drifting sand.

Tripoli is very close to the desert. One



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LADIES OF TRIPOLI'S HAREMS ON THEIR WAY TO THE MOSQUE

Though in many Mohammedan countries the strictness of the rules regarding womankind have lately been somewhat relaxed, women of the harem in Tripoli must still let no one except their husbands gaze upon their face and form. When they pass through the streets they must conceal themselves beneath shapeless wraps and dark masks.



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AT THE JOURNEY'S END both man and beast, though hardened to desert life, are glad to see before them the walls and minarets of a town and to know that soon they will find plenty of water for their refreshment. While the Arab on the right bathes his weary feet, the camels

come to drink, still wearing over their humps the basket "coats" that prevent their backs and sides from being chafed by saddle or pannier. Two of the camels are not yet unloaded. The presence of a horse shows that this city is only on the fringe of the desert.



© E. N. A.

A BEDUIN WOMAN of Tunis admires silver ornaments—earrings, brooches and jeweled necklaces,—and she likes to wear many at one time. Often she wears a large part of her husband's capital, and as his wealth increases so will the number of silver chains, supporting coins or charms, that she fastens to her necklace. Chains may dangle from her brooches as well.

'TWINX THE DESERT AND THE SEA

feels the presence of the immense Sahara, even when one wanders in the streets, jostled by dark Sudanese, well-built Beduins and all the members of the Eastern crowd. From some convenient vantage point we may espy a string of camels afar off. Perhaps they have come laden with ostrich feathers or ivory across the Libyan Desert, which is really a part of the vast Sahara.

The Arabs who inhabit these arid wastes are very different from the pale townfolk of the Algerian cities. They are a hardy race of wanderers, descendants of the fanatical warriors who

overwhelmed Roman Africa. They count their wealth in horses, camels and sheep, and move from one oasis to another under the guidance of a sheik, or head-man.

Cyrenaica, the eastern portion of the Italian Libya, takes its name from the Greek colony, Cyrene, founded in North Africa about 631 B.C. Its principal city and capital is the town of Benghazi which is situated on the east coast of the Gulf of Sidra. Although Benghazi lies in a fertile district where wheat, corn, fruits, and dates are grown, it has little importance as a shipping centre because of its shallow harbor.

ALGERIA, TUNISIA AND TRIPOLI: FACTS AND FIGURES

THE COUNTRY

That portion of North Africa between the Sahara Desert and the Mediterranean Sea which has Egypt to the east and Morocco to the west. Algeria is a French colony, Tunisia, a French protectorate and Tripoli, an Italian colony.

ALGERIA

Government under a French Governor-General assisted by Financial Delegations (representing French colonists, French taxpayers and Mohammedan natives) and a Superior Council. The area, including desert, is about 1,000,000 square miles (estimate); population, 6,064,865. Only small area near the coast suitable for agriculture; mountainous regions adapted to grazing. Large area forest-covered but greater portion of little value. Cereals, fruit, silk, flax and tobacco produced. Minerals include iron ore and phosphates, zinc, lead, mercury, copper and antimony. Fishing and sheep-raising are important. Chief exports are wine, wheat, sheep, tobacco, phosphates, eggs; imports are sugar, petroleum, paper, clothing and automobiles. Road mileage is 9,215; railway mileage, 2,853. Length of telegraph line, 9,564 miles; telephone line, 16,935 miles. Native population entirely Mohammedan. Besides primary and secondary schools, there are schools of commerce, fine arts, hydrography, agriculture, normal schools and a university in Algiers. Population of chief cities: Algiers, 226,218; Oran, 150,301; Constantine, 93,373.

TUNISIA

Government by a native sultan under direction of French Resident-General, assisted by a ministry of 8 French and 3 Tunisian members. The area, about 48,300 square miles; total population, 2,159,708. The capital, Tunis; population, 185,996. Chief industry is agriculture and large estates predominate. Vines, olives, dates, almonds, oranges, lemons, pis-

tachios and alfa (esparto) grass are grown. Minerals include lead ore, zinc ore, iron and phosphates. Native industries are wool-weaving, carpet-weaving, leather embroidery, saddlery and pottery. Fishing and stock-raising are important. Exports are marble, stone and minerals, crude metals and grain; imports: textiles, metal goods and mealy foods. Railway mileage, 1,258 miles; length of telegraph line, 3,375 miles; telephone line, 9,569 miles. There are 441 public schools with 68,150 pupils; many private schools and a Mohammedan university at Tunis.

TRIPOLI OR ITALIAN LIBYA

Under an Italian Governor. For administrative purposes the country is divided into 2 districts—Tripolitania and Cyrenaica. The area of Tripolitania is about 350,000 square miles, and the population, 570,000. Tripoli, the capital, has about 60,000 inhabitants. Small portion of the country is suitable for agriculture. Olives, almonds, fruits and mulberry trees are grown. Sponge-fishing is of great importance. Other industries are tobacco manufacture and the making of carpets and matting, leather articles, embroidered fabrics, gold and silver work. Salt is mined and exported. Communication is mostly by caravan. Railway mileage, 138; road mileage, 1,007. Steamship service.

The area of Cyrenaica is about 75,340 square miles with the hinterland (zone of Cufra), 285,640 square miles; population, 229,700. The capital, Benghazi, population, 30,056. Agriculture is the chief industry and bananas, wine grapes, barley and dates are grown. Sponge and tunny fishing are carried on. Exports are sponges, barley, wool and goats' hair, tunny fish and cattle; imports: cotton goods and sugar. Good carriage roads join coastal centres; railway mileage, 102 miles. There are 7 telegraph stations; 17 wireless stations; 12 telephone exchanges. The harbor of Benghazi is too shallow for large ships.

EGYPT'S WONDERS OF THE PAST

Its Vast Temples and Palaces and Their Builders

The fertile valley of the Nile which forms most of the land of Egypt—so full of living interest in the daily scenes of its cities and villages—is, to all who like to think about the wonderful things that men did in long past ages, the most attractive place in all the world. We may have a glimpse of present-day Egypt in the chapters on Cairo and the Gift of the Nile. Here, we are to read of the Egyptians who lived thousands of years ago and of the wonderful tombs, temples and sculptures which they left and which reveal to us the very life of those ancient times.

ANCIENT Egypt was one of the most curiously shaped countries in the world. It consisted of two

narrow strips of fertile land, one on each side of the Nile, beyond which stretched vast deserts. Thus, although it was several hundred miles in length, Egypt was only a few miles in breadth. The prosperity of the land depended upon the Nile. Along it ships brought trade to the towns; its annual floods enriched the fields with a coating of mud; from it the villagers obtained water for irrigation—as they do still.

This country was the home of one of the oldest civilizations. Even previous to the beginning of written history, which some historians say was seven thousand years ago, there were people living in Egypt whose flint implements and pottery indicate a civilization beyond that of any other pre-historic

people about whom we know. Paintings on vases show that they used boats with oars and even sails, and they cultivated grain. All these things have been found in the graves, for the Egyptians believed in a life hereafter and they thought it necessary to be buried with jars of food and drink so that all would be ready for them when they returned to another life.

History begins with the rule of Menes who lived, some believe, about 5500 B.C., though others think it was not until 3400 years before the birth of Christ. Menes united the two provinces of Lower and Upper Egypt into one nation and established the city of Memphis where he made his residence.

From his time on, there have been so many rulers of Egypt that historians have divided them into thirty dynasties or families



Egyptian Antiquities, Cairo

MODEL OF AN UNKNOWN LADY

This graceful wooden statue, one of the most beautiful of ancient Egyptian statues in existence, was probably executed more than four thousand five hundred years ago.



FAWCETT

QUEEN HATSHEPSUT built this terraced temple to the god Ammon beneath the cliffs at Deir-el-Bahri. Chapels were dedicated to the goddess Hathor and to Anubis, the god of the dead, and several chambers were also devoted to the worship of Hatshepsut herself. To secure myrrh and

incense for the temple, an expedition was sent by the queen to Punt, the "Land of the Gods," which was south of the Sudan and on the Red Sea. This was about 3,500 years ago but a carved record of this expedition can still be seen on the temple.



HEWN FROM SOLID ROCK, four immense statues of the Pharaoh Rameses II of Egypt stand outside the temple of the Rising Sun at Abu-Simbel, two on each side of the entrance. Here we see an Arab standing on the lap of one of these enormous figures. He seems an insignificant dwarf, indeed, compared with the statue of the long-dead ruler.

EGYPT'S WONDERS OF THE PAST

in each of which reigned many kings, known as Pharaohs. The names of these have been gleaned from tablets and papyrus, for early Egyptians inscribed their deeds by means of pictures and marks which learned men have deciphered for us. This was the earliest form of writing.

Outstanding among the Pharaohs was Khufu, or Cheops, who organized the government so that the country was ready for the greatest period of its history. He built the Great Pyramid in 2900 B.C. and it far excels anything that has been constructed even to this day, but we shall read of that in the chapter on the Sphinx and the Pyramid.

At the height of its power, about 1560 B.C., ancient Egypt was an empire comprising not only the Nile Valley but Palestine and the greater part of Syria. Thothmes III was ruling then with the assistance of his step-mother, Hatshepsut, who seems to have been a very able woman and was undoubtedly the first

feminist. She is often referred to as the "Queen Elizabeth of Egypt." Thothmes III, possibly the greatest ruler in Egyptian history, led his army in seventeen campaigns against the Syrians, crossed the Euphrates and received gifts from the Hittites in Asia Minor and from the king of Babylon. During his reign, the peoples of Punt and Ethiopia, just south of Egypt, acknowledged its supremacy and sent enormous quantities of ivory, gold and spices to its temples and Pharaohs. Ships and caravans traded with Babylon, Crete, Greece and various Syrian towns. Records of all these activities were chronicled on the walls of the great temple at Karnak.

Of the same dynasty but living a hundred and sixty years later was Amenhotep III, who is known as a great builder. The magnificent temple at Luxor, temple pylons and whole avenues of sculptured rams, though damaged by time, are still viewed by thousands of tourists each



Metropolitan Museum, N. Y.

HOW BREAD AND BEVERAGES WERE MADE IN ANCIENT EGYPT

In 1920 scores of little models representing everyday life in Egypt four thousand years ago, were found near the tomb of Mehenkwtre, an Egyptian noble. No model, whose spirit could increase his comfort after death, was omitted. Here they are seen grinding corn and making bread, while in the left apartment brewing is in progress.

year. Cuneiform tablets of this period show that he carried on quite a correspondence with the king of Babylon and other monarchs in far-away lands.

His son, Amenhotep IV, stands out because he was a religious fanatic. Casting aside all deities, including Ammon and many others whom they worshiped and in whose honor they had built and decorated these vast temples, he forced the people to worship a universal god "Aten" who represented the sun-disk. He even changed his name to Akhenaten which means "pious to Aten." While he was so busy with religious reforms, however, his country was having political troubles and he lost Syria and other territory in outlying districts. Although his son-in-law, Tutankhamen, restored Ammon and the former deities to their places as the objects of worship, he did nothing to get back the lost territory, and it was not until the next dynasty, about 1240 B.C., that Seti I and his son, Rameses II, regained it. Rameses II is supposed to have been the oppressor of the children of Israel who, we remember from the Bible, came to Egypt because of a famine in the land of Canaan. So prosperous did they become that the Pharaoh made it very hard for them and they finally went back to their own land. Rameses II may not have treated the Jewish tribes justly but he did a great deal for Egypt. Following his reign, however, there was a long period of decline and the country finally fell to the Persians who were themselves driven out by the Greeks in 332 B.C. under the generalship of Alexander the Great, famous king and conqueror.



McLeish

STONE FIGURES IN THE TEMPLE OF AMMON

Among the finest of the remains in this, the greatest temple in ancient Egypt, are these two statues. That on the left represents the god Osiris, and the other is Thothmes III, whose conquests are recorded on the walls of the temple.

When, after Alexander's death, his dominions were divided up, Egypt fell to Ptolemy, his lieutenant, who founded a dynasty by that name which lasted about three hundred years. The last of his line was the famous Cleopatra, who killed herself by means of a poisonous snake, and her empire fell to the Romans.

But let us pay a visit to some of the ruins of ancient magnificence. Perhaps the most wonderful are the Pyramids and Sphinx, but we shall leave them for the time being and go on, not so very far, to the site of the ancient city of Memphis, the royal capital of Egypt five thousand years ago. Nothing remains to-day of this city, formerly so great, but the ruins of temples, palaces and dwelling-houses. Even the gigantic statues of the Pharaoh Rameses II, that once stood here, have fallen to the ground,



METROPOLITAN MUSEUM, N. Y.

THIS STATUE OF TUTANKHAMEN, one of the two that stood in the ante-chamber of his tomb, like sentinels guarding the dead, is of carved wood, splendidly adorned with a head-dress and ornaments of beaten gold. It is seven feet in height, and the head-dress has the upraised serpent, the sign of loyalty. King Tutankhamen lived over 3000 years ago



METROPOLITAN MUSEUM, N. Y.

ROYAL TREASURE, including gold-plated furniture and rich gifts to the dead king, surround this statue of Tutankhamen, which is shown also on the opposite page. Here we see a beautifully decorated clothes chest, alabaster vases that once held spices and the remains of bunches of flowers. These were believed to be used by the dead in the other world.



© Cutler

HUNTING SCENES UPON THE TEMPLE WALLS AT MEDINET ABU

About half a mile from the Colossi of Memnon is the little village of Medinet Abu, where stand the ruins of two temples. On the outside of the walls of the larger building are pictured inscriptions showing Rameses III, who lived more than three thousand years ago, hunting wild bulls, mountain-goats and wild asses, and making war on the Libyans.

More interesting is Tell-el-Amarna, a town founded in 1340 B.C. by Pharaoh Akhenaten, the father-in-law of Tut-ankhamen. Here we can pace the ancient streets and alleys, and visit the palaces and mansions of the king and his great men. A few exquisitely beautiful paintings and sculptures remind us of past glories.

When we inspect the dilapidated little houses in the workmen's quarter we can easily imagine how the poor folk lived in the days of Akhenaten. Some of their food-bowls and water-jars are still in a perfect state of preservation and could well be used to-day. The Pharaoh himself had a wonderful pleasure palace with gardens, an artificial lake and many pools.

The Egyptians were famous for the immense size of most of their important temples and monuments, as well as for the magnificence of the decorations that they lavished on them. Let us go to Dendera and visit the huge temple of the goddess Hathor. This was built in comparatively modern times—about the beginning of the Christian era. The pillars of the temple, all of them covered with carvings and richly painted, are about forty feet high. On the outer walls is a figure of Cleopatra, one of the most famous queens in the world's history, that is almost three times the height of an ordinary man. The greatest pains were taken to make the temple beautiful, and although it is now in ruins, it has not entirely lost its magnificence.



MASONS AT WORK ON A GREAT STATUE

This picture of the fifteenth century B.C. shows workmen giving the finishing touches to a figure of Thothmes III, which is surrounded by scaffolding. One man is polishing the crown, another decorating the feet; others are chiseling the breast and the back.

Traveling up the Nile from Dendera, we presently arrive at Thebes. We shall not, for the moment, visit the city itself but the temples, and especially those of Karnak and Luxor. Among them all, the temple of Ammon first claims our attention, since it is the largest and one of the most splendid. Almost four hundred years were spent in building it; and as we look at the huge pillars in its famous Hypostyle Hall, at the enormous blocks of stone of which its walls and towers are built and at its gigantic statues, we wonder



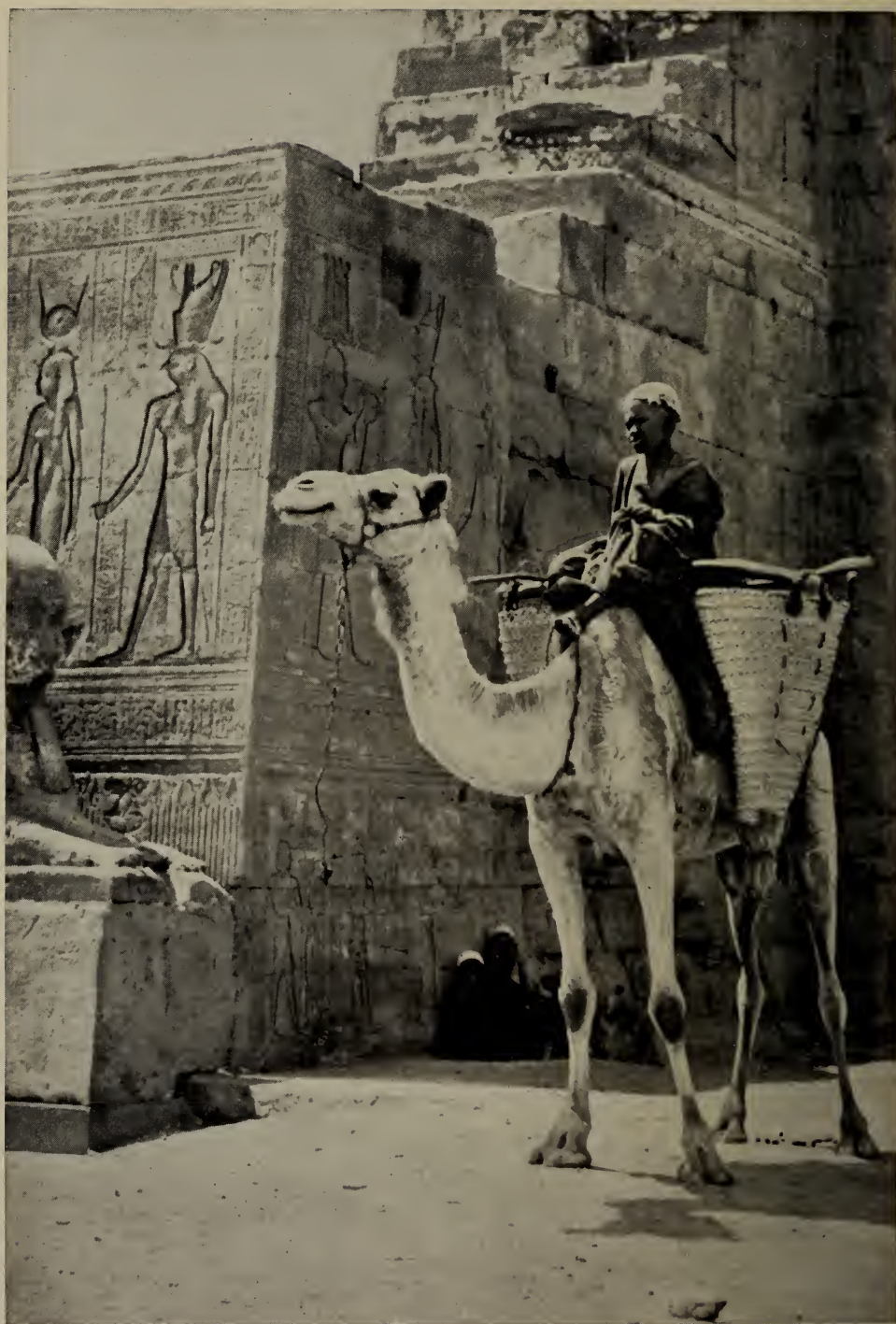
METROPOLITAN MUSEUM, N. Y.

ALABASTER VASES were among the many priceless treasures found in the tomb of Tutankhamen, who died about 1350 B. C. Their exquisite shapes and decorations show how artistic were the craftsmen of Egypt in those ancient days. The fragrance of the perfumed ointments that these vases contained was still perceptible when they were discovered in 1922-23.



METROPOLITAN MUSEUM, N. Y.

BESIDE THIS SHRINE, which was placed in the ante-chamber of Tutankhamen's tomb, stands a wooden ushabti figure. On it is painted a charm to ensure that its soul shall obey the dead king in the other world. The shrine is covered with heavy sheets of gold, and on its doors, here shown open, are depicted incidents in the lives of Tutankhamen and his wife.



McLeish

AMONG THE RUINS OF A TEMPLE OF THE GODDESS HATHOR

Dendera, the ancient Tentyra, was one of the finest and most famous cities in Egypt. Its beautiful sandstone temple was built by Ptolemy XIII, the father of the famous Cleopatra, and the walls bear an interesting series of inscriptions. Within the temple are secret chambers for hiding treasure. On the roof is a building which was used for the worship of Osiris.



McLeish

IN THE MOST BEAUTIFUL TEMPLE OF HORUS, THE SUN-GOD

The great temple at Edfu, of whose spacious court we here see a corner, was dedicated to Horus, the heaven or sun-god. Of great size and decorated with very many wonderful carvings, it is one of the most perfect buildings of ancient Egypt that exist to-day. Horus was usually represented in Egyptian art as having a man's body and a falcon's head.



METROPOLITAN MUSEUM, N. Y.

THIS STRIKING CREATURE, with a long, slender body and legs like those of a cat, is one of the twin supports of the couch of King Tutankhamen, that was found in his tomb in the Valley of the Kings, a valley of rock-cut tombs, among the Theban Hills. The monster is made of wood, richly gilded, and its gleaming teeth and long, pink tongue are of ivory.



METROPOLITAN MUSEUM, N. Y.

TWO WOODEN HANDMAIDENS. half life-size and beautifully carved, were found in the tomb of Mehenkhetre, a nobleman who lived about 2000 B. C. Models of servants were placed in the tombs of nobles and were called Ushabtis, or "Answerers," since their spirits were supposed to wait upon the nobles' spirits in the other world. They carry food in the baskets.

how it came to be built in an age long before cranes and other mechanical devices were known. Especially do we marvel at the genius of the ancient architects under whose care it was built, and at the patience and skill of the artists who adorned it with their carvings.

Very wonderful too are the temple of the moon-god, Khensu, the temple of Rameses III, in which the pillars are carved to represent the god Osiris and the long avenues with rows of sculptured sphinxes on each side of them, that lead to the various temples. We must not miss the temple of Amenhotep III, however, for it is very splendid. Its doorways were in his time studded with gold, and the forecourt, which was built by Amenhotep, was paved with silver. Round this court are seventy-four columns, each in the form of a papyrus-bud.

Where the Pharaohs Were Buried

Beyond the Theban temples we see a line of bleak hills against the deep blue of the sky. In them is the desolate Valley of the Kings, which contains the burial-places of many of the great Egyptian Pharaohs. They were hidden here so that their bodies might not be disturbed by thieves in search of the gold and jewels that were buried with them. In this valley was found, in 1922, the tomb of the young King Tutankhamen, with all his treasures, but he was a very unimportant monarch compared with some of the others who were buried near by.

The graves of mighty Rameses II, of Amenhotep III, of Thothmes III and many another ruler of Egypt have all been discovered here. Some of the tombs are marvelously decorated, and from the pictures and carvings in them we may learn much about the ancient Egyptians. Others have contained articles of furniture and personal belongings of the dead kings, and from these also the story of the past can be read.

Embalming the Royal Bodies

The bodies of the kings as well as of all who could afford it were prepared for burial by a long and costly process. Em-

balmed first, the body was then wrapped tightly in fold after fold of linen which had been soaked in some kind of preservative and placed in a coffin made in the likeness of the person it contained. This statue-coffin was placed in still another coffin of stone or wood. Thus, the remains and all its possessions awaited the day when the immortal soul should return. In the Museum of Antiquities at Cairo, the mummies of many of the famous Egyptian kings are on view, while in our own museums we may see the mummies of the less important people. All this has served to make Egypt of the past so very real to us.

There are many other temples and monuments in different parts of Egypt that we might visit, but we shall leave the lifeless statues and great empty buildings and turn to the people who erected them.

Let us imagine ourselves in Egypt about 1240 B.C., in the days of the great Pharaoh Rameses II. We are at Memphis, but we wish to visit friends at Thebes, and so hire a boat in which to travel up the Nile. Our voyage will be extremely comfortable, since our deck-cabin is not too small and is very airy and handsomely furnished. We embark. Luggage and stores are all aboard. The rowers bend to their oars and we begin to glide placidly up the river. Day after day we proceed, sitting when it is not too hot on the high platforms at the bow and the stern to watch all that happens on the banks. Sometimes a breeze springs up and the gaily-colored sails are hoisted.

We Are Welcomed by the Merchant

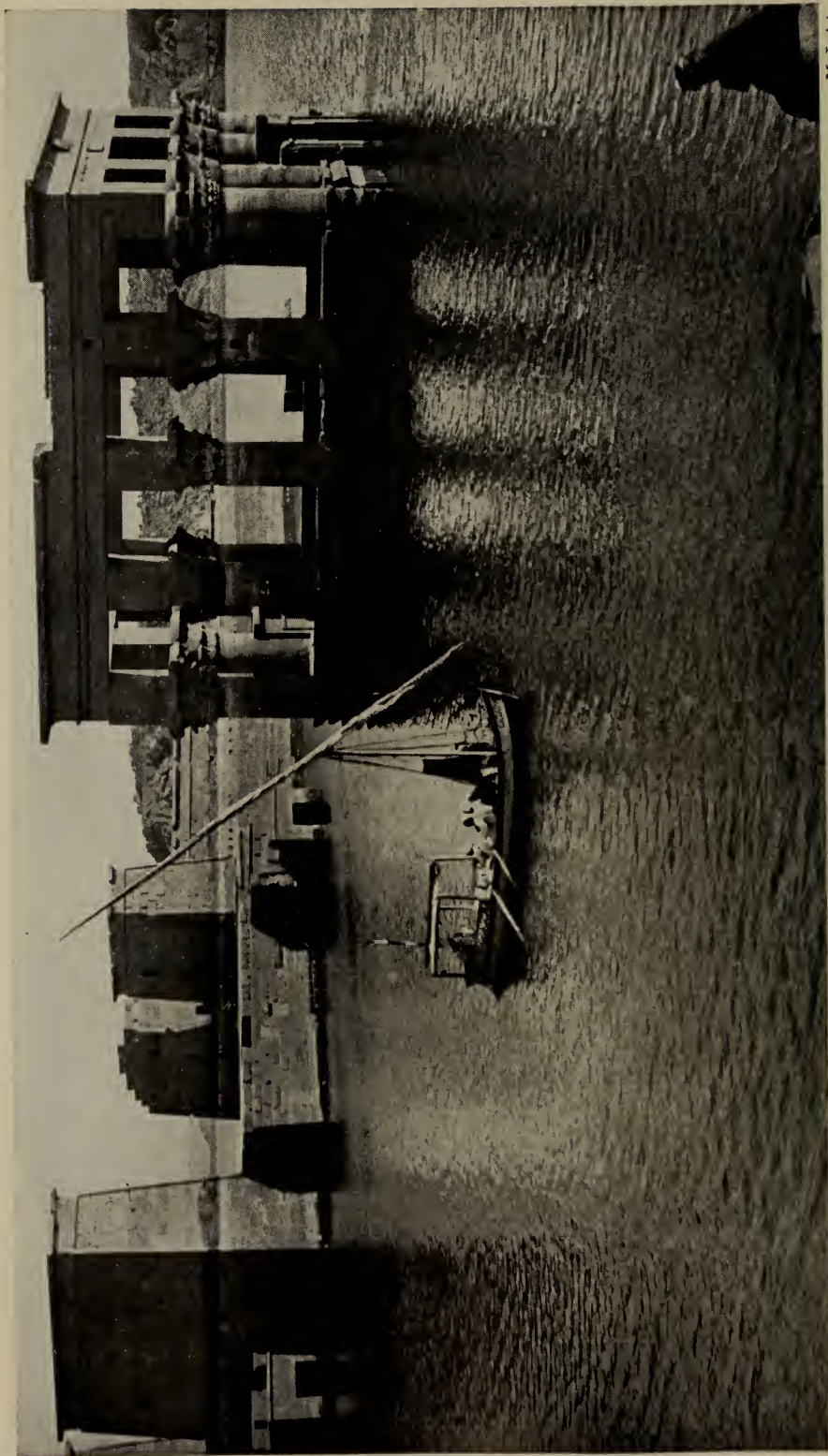
At last we see Thebes, the most magnificent city in all Egypt, and the temples of Karnak and Luxor with three bare grim hills beyond them. Our boat is moored to the stone-paved quay, and we go ashore to meet our friends. One of them, a merchant, comes forward to greet us. He is bareheaded in spite of the hot sun, wears a linen robe with a long skirt and carries a stout cane.

He limps a little, since his laced leather shoes are new and tight. His wife, our friend explains, is looking forward



MCLEISH

THIS SCULPTURED ARCH of Ptolemy III, at Karnak, stands on the site of ancient Thebes. It is in the avenue that leads to the temple of Khensu, the god of the moon. The arch has carved reliefs showing Ptolemy III, a warrior king of Egypt who lived in the third century B.C., offering sacrifices to the gods of Thebes. The architecture is typical.



McLeish

"PHARAOH'S BED" AND THE MIGHTY TEMPLE OF ISIS ON THE SUBMERGED ISLAND OF PHILÆ

Before the building of the dam at Assuan, and the subsequent raising of the Nile, the island of Philæ rose high above the level of the river, and its temples basked in the hot sunlight, with bushes and palms growing about them. Now the Nile water flows over the island, some-

times completely covering its splendid buildings. The pillared structure before which glides this graceful craft is known as "Pharaoh's Bed" and was never completed by its ancient builders. Like the massive temple to the left, it was dedicated to the goddess Isis.

EGYPT'S WONDERS OF THE PAST

eagerly to our visit, but she is at present at her jeweler's waiting while he makes a bracelet for her from a bar of gold that she was given that morning. Our other friend, a captain of the Libyan soldiers, would also have been on the quay to meet us had he not been obliged to investigate a case of theft, for his detachment acts as a police force in the workmen's district. The merchant suggests that we should go to this district on our way to his home on the chance of seeing the captain.

In the Streets of Thebes 1240 B.C.

The streets are narrow and the little houses of sun-baked mud are mainly of one story although some have two. Since very few of the doors are closed we can easily look inside. There is little furniture to be seen—palm-leaf mats that serve as beds and couches, some earthenware dishes and jars containing water and oil and a small image of a god are usually all that a workman's family possesses. Sometimes there are also two or three wooden chests, and in some of the two-story houses a room on the ground floor serves as a stable for a donkey.

Scantly dressed children swarm everywhere, and in most of the houses we see women busy at household tasks. Here is one grinding corn; there one is baking bread, the chief food of the poorer people. Another, helped by a neighbor, weaves cloth at a rough loom. We see very few men, however. Most of them went to work at sunrise taking with them their dinner—bread soaked in oil and some fruit—and will not return home till sunset.

We see some of them at work as we draw near to the market. The clang of hammers attracts our attention to a metal-worker's shed. Two brawny fellows are fashioning harness for a pair of chariot horses. Our friend speaks to a carpenter who is making some very handsome chairs for him. When we resume our walk he tells us not to go too near a certain booth. It is the workshop of a dyer, he explains and adds, quoting from an Egyptian poem, that the dyes are "evil-smelling as bad fish." We hear the tramp of a party

of men, and our other friend, the captain of Libyans, appears with a file of his soldiers.

Negro Soldiers and Sailors

In front of the line is a trumpeter and behind him a dozen infantrymen carrying light shields and axes and with spears sloped over their right shoulders. They wear felt caps and waist-cloths, but no armor, and are a very well-disciplined body of men. Behind comes the captain, unarmed though he carries a decorated baton of command. He is an Egyptian, appointed to the Libyan legion by Pharaoh, but the soldiers are Negroes.

As we pass through the market, let us look at the crowds around us. There are artisans, dressed only in waist-cloths, with their wives, who wear simple smocks. Clerks and priests in short kilts pass by, and smart merchants like our friend. Sellers of perfumes and roast meats, bakers, shoemakers and toy-makers urge us to inspect their wares. A barber wishes to shave us. The slave attached to a little restaurant suggests that we should have our evening meal there.

Marketing without Money

Our friend waves them all away, but wishing to buy us a present, stops at a perfume stall. Several little jars of scent are shown to us and we smell them, finally choosing two. Our friend takes another and offers the saleswoman a small block of gold for them. She declares that it is not enough. After a quarter of an hour's bargaining she accepts the merchant's offer and tells us that she is extremely pleased to be paid in gold, since that morning she has taken a pearl necklace, a silver bracelet and a fan set with gems in exchange for perfumes. Our friend explains as we stroll away that this system of barter is the custom.

Presently we arrive at his house. It is quite an imposing mansion of three stories and has a large courtyard surrounded by a high wall. The large windows of the two upper stories overlook the street. Within we find magnificent furniture—chairs, carved and gilded, chests with little



FAWCETT

of the ruined Ramesseum, a temple built by Rameses II, one of the greatest of the Pharaohs. Not much more than half of it remains to-day. To the right of it are seen—tiny, light specks on the broad plain—the two colossi shown on the opposite page.

FROM THE THEBAN HILLS above the Valley of the Kings, a royal burial ground of ancient Egypt, we look across a flat, green plain to the Nile and the far-away heights on the other side of the river. Beyond the left-hand shoulder of the ridge in the foreground we see the columns



MCLEISH

THE COLOSSI OF "MEMNON," each about sixty-five feet high, stand by the Nile near the ancient town of Thebes. The Greeks and Romans took the right hand statue to represent the god Memnon, which, it is said used to cry mournfully at sunrise. The figures are statues of Amenhotep III and his wife Tiye, a king and queen who lived about 1400 B. C.

pictures painted on them, and rich hangings. The walls are painted with figures of gods and scenes of everyday life.

The food that we are offered is excellent. We have roast meats in abundance, baked fish, stuffed duck and pickled fowl, fruit, bread and cakes. While we eat we hear news of the merchant's two eldest sons. One is an officer in the celebrated legion of Ammon—all the regiments are named after gods. He is going to take us to hunt wild fowl the next day on the estate of a noble. The other son is a scribe. This profession, it appears, becomes less and less confined to the middle classes for many of the working classes are educating their sons to become scribes.

When we retire for the night we find that we are to sleep on a mattress on the floor. Instead of having a pillow, we rest our necks on curved wooden supports. Everything is very clean, and the breezes that blow through our windows are cool and laden with the scent of flowers.

A Day of Hunting and Fishing

We go to the nobleman's estate the next day and, embarking on wooden canoes, proceed to a near-by marsh. We find plenty of wild fowl among the reeds, and our host soon kills three ducks with boomerangs. He has a pair of trained cats to retrieve the game for him. While he is throwing the boomerangs, slaves in two other canoes lower a net. This is soon drawn up filled with fish.

We dine with the noble and, while we eat, minstrels play on harps. Our host is a widely traveled man. As an army officer he has accompanied his regiment to Palestine and led a charge against the Hittites in his chariot. On another occasion he sailed down the Red Sea to Punt, on the East African coast, to obtain spices and gold for the Temple of Ammon. He is also well educated and in his library has books of tales and poetry, works on medicine and mathematics, all written on rolls of papyrus—paper made from a kind of reed.

By far the most interesting part of his life, so the noble tells us, was the period

when he was at court in attendance upon the Pharaoh Rameses II. He describes an audience to us. The monarch, seated on his golden throne, wore a double crown, to show that he was king both of Lower and Upper Egypt. On his forehead was the royal golden cobra, the uræus. Near him was his eldest son Khamuast, an able statesman, a priest, and, so it is said, a great magician. His Majesty's Libyan guards, armed with their double-edged swords, were posted about the palace.

Attending the Great Pharaoh

A messenger from Palestine arrived and was admitted to the audience chamber. He and the councilors assumed attitudes of worship when they came into the king's presence since they regarded him as the descendant of a god and himself a demigod. Kneeling, with their faces close to the floor, they gave him their news and heard his answer. Another messenger came to tell Rameses that there was a famine in some distant province; yet another brought word of a convoy of gold that was on its way from Ethiopia.

We ask the noble to tell us more of Rameses II and he agrees willingly. Rameses, while still a boy, had been associated with his father Seti I in the government of Egypt. When only ten years old, he was sent to the wars in Syria and a little later went to subdue the turbulent tribes of the lands watered by the upper Nile. This he did successfully. Rameses was a great warrior and after he became Pharaoh led an army against the Hittites in Syria. The chariots were under his own command, and by his bravery he succeeded in turning the battle of Kadesh from a defeat into a victory.

Prosperous Reign of Rameses II

Much of his vast wealth was spent on building operations. As well as raising huge temples, he had the irrigation canals of the Nile delta repaired and extended and established caravan stations along the route to Ethiopia. Rameses was one of the greatest of the Pharaohs. Egypt was peaceable under him; the people were prosperous and the police efficient.

THE SPHINX AND THE PYRAMID

Two Mighty Monuments of Bygone Ages

In another chapter we may read of the marvels of ancient Egypt with the exception of two that are perhaps the most fascinating—the Great Pyramid and the Sphinx. The oldest example of a sphinx is the Great Sphinx at Gizeh, which is 189 feet long. But the sphinx was not peculiar to Egypt for, as we shall read in this chapter, there were also Greek and Assyrian sphinxes which, however, differed greatly from those of Egypt. The pyramids also are not confined to Egypt for gigantic monuments of this type are to be found in the Sudan, in Algeria and even in Mexico. The largest of these monumental structures is the Great Pyramid of Gizeh which is the sole survivor of the "Seven Wonders of the World."

FROM the Nile at Gizeh we may see, dark against the cloudless sky of Egypt, three immense tombs like shapely mountain peaks built in the desert by man. If we approach them, we find near by a huge battered monster of stone. It is to this group of remains that we usually refer when we speak of the Pyramids and the Sphinx. But there are other pyramids and other sphinxes which, though perhaps less famous, are not less interesting. These are to be found not only in Egypt, but also in lands thousands of miles across the seas.

"Sphinx" is a Greek word which means the "throttler." It was used to designate a terrible being which had, so it was said, the head of a woman, the body of a lioness and wings. According to the ancient legend, she originally lived in Africa, but was sent by the gods to Thebes in Greece to punish the sins of a Theban ruler. Taking a rock near the city for her abode, she asked every passer-by a riddle. "What walks on four legs in the morning," she would demand, "on two at noon and on three in the evening?"

All who could not guess were devoured, and everyone failed until Œdipus came. He was able to tell the Sphinx that the answer was, "A man"; because, as a baby, he crawls on hands and knees, in the prime of life he walks upright, and when old age makes him feeble he can only progress with the help of a stick or crutch. Since her riddle had been solved, the Sphinx threw herself from her rock and the Thebans were never troubled by her again.

Thus we see that the Greeks believed their Sphinx to be an evil monster preying upon mankind. When they came to Egypt and there saw huge carved figures that were half-beast and half-human, they called these sphinxes too. But although it was at one time thought by the Egyptians that sphinxes roamed the deserts, they were more generally accepted as symbols of the grandeur and power of the Pharaohs. Their most notable characteristic was their superhuman dignity. Their bodies, made like those of lions, represent might and nobility, and their heads are usually portraits of ancient kings. Sometimes, instead of having a man's head, they had that of a ram like those at Karnak, and there are some that were made with the head of a hawk. To the Egyptian this did not detract from their dignity for a ram was emblematic of the great god Ammon, whom they worshiped, and a hawk was symbolical of the king as a warrior.

It might be asked here: What is a sphinx, since it had all these forms? It is not merely a monster with a body that is partly beast and partly man. A mermaid is not a sphinx, for example; nor are the winged bulls with the heads of bearded men that we find in Mesopotamia; nor is the Hindu god Ganesha, who is represented as having a man's body but an elephant's head. We may take it as definite that true sphinxes have a lion's or a lioness's body and a head which is either a portrait or symbol of a human being or god. Whatever other character-



THE GREAT SPHINX at Gizeh is the oldest and most famous of all sphinxes. It is probably the oldest statue in the world, but no one knows exactly when it was carved, or which Pharaoh the huge head represents. It is thought to be a portrait of King Khafra, or Chephren, who built the Second Pyramid, seen on the right. He lived about 5,000 years ago.



AN ALABASTER SPHINX, almost perfectly preserved, was discovered in 1912 on the site of the ancient city of Memphis. It was probably carved about 1240 B. C. during the reign of Rameses II. The sphinxes were given their name by the Greeks, quite incorrectly as it happens for the Greek sphinx is a demon and not, like the Egyptian, an emblem of majesty.



British Museum

THE GREEK SPHINX HAS WINGS AND A WOMAN'S HEAD

The Egyptian sphinx is always male and wingless; the Greek sphinx is female with the body of a lion and the wings of a bird. According to an old Greek legend the Muses had taught her a riddle which the Thebans must answer. All who could not solve it were carried off to be eaten. When Œdipus gave the correct answer, she killed herself by falling from a rock.

istics they may have are purely incidental. So we would not consider the kneeling rams found in Egypt as sphinxes, although in appearance they closely resemble them.

The great sphinx at Gizeh, which has been mentioned already, is the most celebrated of its kind. For centuries it has been considered a thing of awful mystery. Indeed, it was once thought, quite

wrongly, to be an idol of such importance that Arab invaders, in their desire to spread Mohammedanism and to do away with all other kinds of worship, deliberately disfigured it. But in spite of their fanatical efforts at destruction and of the ravages of time, the sphinx is still beautiful, and its size makes it extremely impressive.

At Karnak we may see long avenues



Petrie

GREAT SPHINX AND GREAT PYRAMID: TWO WONDERS OF THE WORLD

The Sphinx, here seen across the entrance temple to the Second Pyramid, is cracked and damaged and half buried in sand. In 1925 its neck was strengthened, some of the cracks were filled up, and the sand was cleared away so that its great paws were visible. This excavating has been done before, but the shifting sand always covers them again.



SIR FLINDERS PETRIE

AT MEDUM, on the desert's edge, forty miles south of Cairo, is the queerly shaped pyramid of King Sneferu. It rises in three tiers from a mound that is really another tier covered with debris. Most likely it was once a true pyramid in shape. King Sneferu built for himself another pyramid at Dashur, but it was probably in this one that he was buried.



MCLEISH

THE GREAT PYRAMID was built as the tomb of one of the greatest of the Pharaohs, Khufu or Cheops. Dimly, in the side nearest to us, we can see the opening that leads into the small chambers within which the ruler and his queen were entombed. The Great Pyramid is an impressive sight, whether seen by moonlight or by daylight, at dawn or, as here, at sunset.



Gaddis & Self

ROWS OF SPHINXES THAT LINE THE APPROACH TO THE GREAT TEMPLE OF AMMON AT KARNAK

On page 65 we read about the great ruined temples at Karnak, in Egypt. Here we see one of the avenues of sphinxes that lead to them. It is two hundred feet long and once led to the riverside. The Nile now flows, however, some distance away, for it has changed its course since then.

The Egyptian sphinx is a crouching lion, usually with the head of a man. These have rams' heads, because they line the approach to the Temple of Ammon, a great god who in primitive times was worshiped in the form of a ram. Some sphinxes have hawks' heads.

lined with sphinxes. Some, as we have already said, have the heads of rams; others are like representations in miniature of the sphinx at Gizeh. All are wonderfully wrought. Splendid indeed must have been the effect when the rows were complete and the shapely figures were yet unspoiled by weather and hard treatment. One of the most beautiful sphinxes ever discovered is that which stands on the site of the old city of Memphis. It is of alabaster and is extraordinarily well preserved, so that we may study the grace of its lines and the serene and kingly expression on its face.

Sphinxes of Other Lands

The ancient Assyrians also had sphinxes, but like the Greeks represented them as having wings and considered them to be demons. Although they have lions' bodies, these creatures are far from being noble or stately. Their faces are incredibly foolish for they have great staring eyes and are usually smirking. Those of the Hittites, who lived in Asia Minor, are more ferocious in appearance but are stiff and conventional. Some have two heads, and they resemble an ordinary lion to which a human head has been given in addition to its own.

In Central America, among the carvings of the ancient Maya peoples, are some monsters that are not unlike sphinxes. We see, therefore, in how many different lands the conception of this strange type of imaginary creature met with acceptance.

Let us now turn to the Pyramids. Pyramids were usually erected to glorify the dead. In prehistoric times, the people undoubtedly marked the graves of their dead with poles and brushwood and possibly a covering of loose stones. Later, these rude constructions developed into the Pyramids, which were elaborate monuments built over burial places. In the majority of cases, the bodies were placed deep in the earth beneath them and not in the heart of the structure as one might suppose. Some of the chambers above were used as a storehouse for things the deceased might need hereafter.

The Famous Pyramids of Egypt

The Egyptian pyramids are the most famous. They were the tombs of kings and sometimes of queens and other important persons. Most have the perfect, symmetrical form of those at Gizeh. In others we see a series of great "steps" ascending to the summit. This type is constructed of several lofty tiers of masonry, each of which is smaller than the one immediately below it. The most interesting example is the pyramid of King Zoser at Sakkara, which is especially worthy of note, because it is probably the earliest that still survives. It is almost six thousand years old. Another very ancient tomb, the pyramid of Sneferu at Medum, which we see on page 84, is constructed on a somewhat similar plan.

The pyramids were usually of stone, though a few built of bricks are still to be seen. These are generally of comparatively recent date and, like that at Dashur, are in a ruinous condition. The sizes of the pyramids vary. There are examples small enough to be almost insignificant, and there are immense structures like those at Gizeh.

Everyone has heard of these three wonderful monuments, and an infinite variety of fantastic theories as to their purpose has been advanced. Actually, however, the smallest is the burial place of King Menkaura, the medium-sized one that of King Khafra and the largest that of King Khufu. The smallest is also the most modern, but it is nearly five thousand years old.

Within the Great Pyramid

Let us visit the pyramid of Khufu—the Great Pyramid, as it is called to distinguish it from its neighbors. Although from a distance its sides appear even and unbroken, when we approach it we see that it is composed of vast blocks of stone, most of them higher than a man and some weighing many tons. Imagine the work it must have been to bring over two million blocks by boat across the Nile, then to have transported them, probably along greased roads, and to have placed



FAWCETT

THE PYRAMIDS OF GIZEH, it has long been thought, were built by thousands of wretched slaves, driven to perform a stupendous task by their tyrannical rulers. It is now considered more likely that the Pharaohs who ordered their construction were conferring a great bene-

fit upon their subjects. The three months of the year during which the Nile was in flood were a time of great hardship, for no agricultural work could be done. Then the peasants were set to work upon the pyramids, and were fed and housed at the king's expense.

THE SPHINX AND THE PYRAMID

them in position by means of pulleys and ropes. And so accurately was it done that the base lacks but a fraction of an inch of being a perfect square. Such was the engineering skill of the early Egyptians. Each of its sides measures about 755 feet, and its height is about 451 feet. But these bare measurements give little idea of its majesty—it is one of the most magnificent tombs in the world.

Now, as has been stated, the burial chamber was usually underground, beneath the pyramid. There is such an apartment below the Great Pyramid, but it is unfinished, and the real burial place is within the colossal mass of masonry. If we enter the passage which opens upon the north face of the pyramid, we ascend for some distance before we come to the grand gallery, from which, turning southward, we can reach the so-called Queen's chamber. If instead we continue to climb, however, we reach an antechamber and then the King's chamber.

In it is a huge empty sarcophagus, carved from a solid block of granite. Indeed, one of the few disappointing features of the Great Pyramid is the fact that it contains so little. It was entered ages ago by tomb robbers. The King's chamber is ventilated by channels leading to the open air.

Other ancient peoples must have been profoundly impressed with the desirability of pyramids as tombs. In the Sudan, as we show on page 89, small varieties are found, while in Algeria there are large tombs which have obviously been evolved from Egyptian pyramids.

In America there are also many pyramids, but these were constructed for entirely different purposes. The Mayas set temples upon them, and thus gave an appearance of importance and stateliness to their religious buildings. In Mexico there is one massive structure, the pyramid of the Sun at San Juan Teotihuacan, that almost equals those of Egypt in size. It is built of adobe and is faced with stone and stucco. There are also many that are smaller, but very elaborately finished. All are more squat than the Egyptian pyramids and have steps to their summits.



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SMALL FLAT-TOPPED PYRAMIDS THAT MARK THE BURIAL GROUND OF EGYPT'S ETHIOPIAN IMITATORS

That the ancient Egyptians had their imitators we can see from this photograph of a burial ground in ruined Meroe, an ancient Nubian town that was once the capital of Ethiopia. It is in the Sudan and contains about 200 small pyramids, dating from about 150 B.C.



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WHAT THE GREAT PYRAMID OF KHUFU AT
 The Great Pyramid has not only a subterranean burial chamber beneath it, but has also two chambers within its heart, all three being reached from the same entrance. The left hand photograph was taken within the lofty part of the passage—the grand gallery—that leads to the



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GIZEH IS LIKE FROM WITHIN AND WITHOUT
 uppermost, or King's chamber. No remains of the king were found there. In the right hand photograph we see the huge blocks of stone of which the structure was built. The outer casing of stone has been removed and, so people say, was used to build Cairo.

THE GIFT OF THE NILE

How Men Live To-day in Fertile Egypt

Of the marvels of ancient Egypt we have already learned in an earlier chapter. Now we are to read of the modern Egyptians. Like most fertile lands, Egypt has suffered from many invasions. During the 5,500 years in which we can trace its history, countless periods of foreign domination have occurred, yet many of the native inhabitants of the Nile delta and valley are of the same people as those who were the subjects of the Pharaohs. In 1922, after it had been a British protectorate for eight years and had prospered exceedingly, Egypt once again became an independent state. Given wise government, however, the future of the country would appear to be full of promise.

IF we look at a map we shall see that the wonderful country of Egypt is an oblong piece of land with the Nile River running through its centre like a backbone. We shall see that the Mediterranean forms the northern boundary and the Arabian desert and the Red Sea the eastern, while on the south is the Sudan and on the west the Libyan desert. The Nile, most famous of rivers, flows northward in a narrow valley which, in the course of ages, it has carved for itself in the rock of the desert.

The White Nile brings down mud and silt while the Blue Nile, which joins it at Khartum in the Anglo-Egyptian Sudan, brings down so much water at one time of the year that it causes the united rivers to overflow their valley. When the waters subside, however, there is left a covering of rich black mud. The mud which has been deposited at the mouth of the Nile where it runs into the still waters of the Mediterranean, has gradually formed the Delta, known as Lower Egypt, and the narrow valley of the Nile is known as Upper Egypt. These two constitute the Egypt of history—the land which has been called the Gift of the Nile. They form only about one-twenty-sixth of the whole area that is modern Egypt. The rest is desert and, save for a few oases, uninhabitable and useless.

We have read of ancient Egypt and know that the country fell into the hands of the Romans in 30 B.C. There it remained for nearly seven hundred years when the Arabs invaded Egypt in the interests of Islam. This land became a part of their territory and it so prospered that

the magnificence of court life rivaled even that of the Pharaohs. In 1517, however, Selim I, ruler of the Ottoman Empire, having conquered Syria and Palestine, came down into Egypt and had himself declared sultan.

Egypt was from then governed as a Turkish province directly under the Mamelukes, who, although subject to the Ottoman Empire, had considerable power. They lived most extravagantly so that there was little revenue for the improvement of the country and naturally it suffered exceedingly.

Impoverished, indeed, Napoleon found it when in 1798 he invaded it for the purpose of using it as a base for the conquest of India. His occupation of Egypt was not of long duration, however, for in 1801 he was forced to surrender to the British, and the British themselves stayed but two years longer.

There came to power about this time an Albanian, Mehemet Ali, who had come to Egypt originally to help the Turks against Napoleon. After the evacuation of the foreign armies, he sought to strengthen his power by siding first with the Turks and then with the Mamelukes. The Turks appointed him ruler of Egypt whereupon he rid the country of the Mamelukes by one of the most treacherous massacres known to history. The wily Mehemet Ali then consolidated his army and invaded Arabia, Palestine, Syria and portions of Asia Minor. The defeat of the Turks resulted in his being given hereditary authority over Egypt, under the suzerainty of the Ottoman Empire, however. Then he set about



Goodsall

NILE IN FLOOD AS SEEN FROM THE ENTRANCE OF THE VALLEY OF THE KINGS

On page 76 we can see a view that is similar to the one shown here. There, however, the Nile is at low level. The water in the middle distance is not the Nile but part of the floods, and the river itself appears as a silvery streak far in the background. The Nile begins to

rise at Assuan in June and attains its highest level in September. It is lowest from January onward. The river and its floods have made Egypt; but south of the Delta the fertile strip is seldom more than ten to fifteen miles wide—a strip of green bordered by dry and sandy wastes.



EGYPT AND THE NILE: A CONTRAST OF DESERT AND TOWN

improving the condition of his newly-won domain and did a great deal toward bringing it back to prosperity.

Egypt again fell into troublous times under Ismail, grandson of Mehemet Ali, for he was very extravagant. To pay for his luxurious tastes, he sold a large number of Suez Canal shares to the British government and incurred such a large public debt that foreign governments forced an investigation. Egypt was found to be in a state bordering on bankruptcy. Taking advantage of this state of affairs, the sultan of Turkey decided to oust Ismail and to appoint Tewfik, his son, as "khedive," although Ismail had paid a very large sum for this very title.

In 1882, Egypt had more difficulties for an Arab revolt, seemingly directed

against foreigners, broke out. As the sultan seemed not anxious to interfere, Great Britain took a hand and then organized a government.

Of the people who made history in this land we already know, but what manner of people inherit it to-day? Are they the descendants of the Egyptians of old or have successive invasions wiped out that mighty race? The answer is that while the kings, priests and nobles disappeared, the peasantry remained, usually as slaves, to till the fruitful soil whose crops made the country so rich. Of the fourteen millions inhabiting Egypt to-day, many of them are "fellahin," or agriculturists, and many of these are the descendants of the old race, as are the Christian Copts.

Christianity spread early to Egypt, but when the Saracens conquered the land in

THE GIFT OF THE NILE

the seventh century A.D., most of the Egyptians were converted to the new Mohammedan religion, so the fellahin are almost entirely Mohammedans. Those remaining Christians formed a small body which now numbers about 800,000, the members of which are known as Copts. The Copts live mostly in the towns, and are skilled goldsmiths, watch-makers and tailors. Unlike the Mohammedans, a Copt has only one wife. Coptic women usually appear in the streets in flowing garments, with gold necklaces, bracelets and long black silk veils, although the veils are not worn over the face in Moslem fashion.

A railway now runs south as far as Assuan, but by far the most interesting way to see Upper Egypt is to go by the old highway—the river. The water of the Nile is brown. Brown, too, are the slender

well-formed fellahin whom we may see working in the fields all along the valley, using plows such as their forefathers had four thousand years ago and raising the water by means of the shaduf, as they did at the time of the Exodus. The shaduf is fully described on page 95.

Another way of raising water is by means of a wheel turned by a blindfolded buffalo, camel or donkey in charge of a small boy, for among the fellahin even the children must work in order that the land, wherever possible, shall bear three crops a year. Clover is grown to feed the animals, and corn and wheat to feed the people. Cotton is cultivated for export; sugar-making is also a big industry, and beyond Minia, about 170 miles south of Cairo, fields of the greenish-purple sugar-cane extend for miles and miles.

In every town in Egypt we may see



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LOW-LYING FIELDS OF THE NILE DELTA ARE EASILY WATERED

The Nile delta produces great crops of cotton and rice, and is watered all the year round by means of numerous canals which are filled by the river. To raise water to fields that are not more than five feet above the level of the river, the fellah uses the Archimedean screw. This device is believed to have been invented by the Greek, Archimedes,



McLeish

PRECIOUS NILE WATER SLOWLY BROUGHT TO THE THIRSTY LAND

The Egyptians have an antiquated machine, called a shaduf, for raising water. It consists of a frame on which a long pole is suspended. At one end of the pole is a bucket and at the other a weight. It is of great value to the farmer in carrying water from river or canal to the level of his fields. Where the bank is high, several shadufs are erected.



McLeish

PORT SAID AND THE MEDITERRANEAN END OF THE SUEZ CANAL

Work was begun on the Suez Canal in 1859 and the offices of the Suez Canal Co. were established in Port Said, which was then only a little village. A Frenchman, Ferdinand de Lesseps, who later unsuccessfully attempted to construct the Panamá Canal, was the builder of this

waterway which joins the Mediterranean with the Red Sea. When the canal was opened to traffic in 1869 Port Said quickly grew into a busy port with a splendid harbor, as can be seen in this aerial photograph. On the opposite side of the canal is Port Fuad.

men sitting at the street corners beside a stack of sugar-canes which are broken off and sold as candy. Many other crops are grown besides excellent fruit and vegetables, and graceful feathery-leaved date-palms, with their bunches of golden dates, are to be seen everywhere.

Houses of the Villagers

Dotted here and there are the villages with the white domes of the mosques towering above the houses. These dwellings are built of either mud and wattle or of mud bricks, as wood is scarce. Each little house—they often contain only one or two rooms—has a tiny courtyard in front where the animals are kept and where the cooking is done. At the entrance to many of the villages are two mud towers which are shaped like temple pylons. These are for the pigeons, which are kept as much for their dung as for their flesh, for cakes of dried dung are used to keep the fires burning.

Inside the courtyard we can see something that looks like a high, wide font made of mud. This serves many purposes. It is used to keep fodder out of the reach of the animals, to keep the babies out of the reach of scorpions when the mother is busy and, in the hottest weather, it may serve as a sleeping place for the family. In cool weather the whole family and the animals sleep together in the dark airless house.

Along the Nile to the Great Dam

The towns on the Nile are all interesting in various ways. In Assuit is the American College established by Presbyterian missionaries, the graduates of which are in great demand as government employees, and also we may see here the famous shawls made by clipping pieces of gold or silver tape to black or white netting. Kena, farther south, is a centre for the manufacture of pottery.

Many of the Nile towns owe their prosperity to the fact that they are favorite stopping places for tourists. Luxor is large and flourishing, not only because it is a sunny health resort, but because of its situation in the heart of ancient Egypt.

Here, where the valley broadens out, once stood Thebes, the city with a hundred gates, the metropolis of Egypt for four centuries, about which we read in the chapter Egypt's Wonders of the Past.

Assuan, which is situated close to the First Cataract on the Nile, has always been important. Here started the caravans that traveled over the Libyan Desert and right across North Africa; here, too, was quarried the red stone which was used by the ancient Egyptians for their statues and temples. Now Assuan is a health resort with fashionable hotels, but its principal interest lies in the Great Dam. This dam is a solid piece of masonry a mile and a quarter in length, which extends across the river. By closing its 180 water gates as required, the waters are held back until they form a great lake, thus saving the land from disastrous floods, while the opening of the gates later on prevents drought and famine.

People of Upper Egypt

The people become darker-complexioned as we go farther south, and from Assuan to the border of Egypt at Wadi Halfa, the people vary from light coffee color to black. In the extreme south we shall find the dark negro-like Nubians. Their little villages and towns are better built and cleaner than those lower down the river, and the people themselves are intelligent and very interesting. The men wear the "galabeah," a long dark blue cotton gown, and usually a white turban. The women are fond of adorning themselves with elaborate silver jewelry.

Owing to the fact that for hundreds of miles it receives no tributary, and that it is being used all the time for irrigating the land, the Nile, which is a mile wide at Khartum, has shrunk considerably by the time it reaches Cairo. Below the city it enters the Delta, where the water is diverted into three large canals which feed a network of smaller ones.

The Delta is the most fertile part of Egypt and, in order to give as much land as possible to the cultivation of the cotton plant, the teeming population is terribly

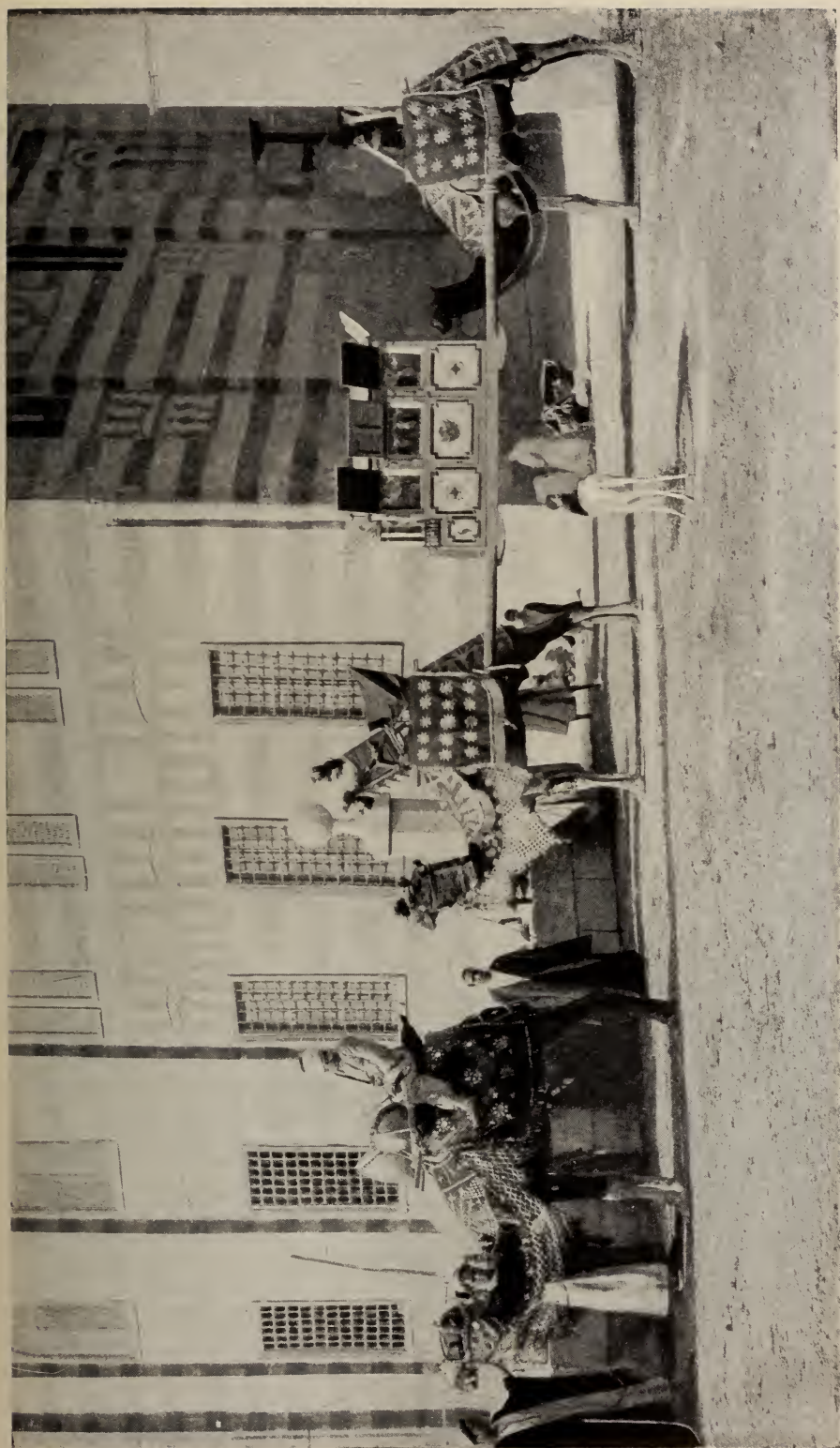


Braithwaite

VINES CAST WELCOME SHADOW OVER A LITTLE STREET IN AN EGYPTIAN VILLAGE

There is little bustle in an Egyptian village at any time, and during the heat of the day most of the inhabitants go to sleep in their homes or in the shade of a tree. Here we can see two open-fronted shops that resemble those in the native quarter of Cairo. Each village is ruled by

an omdeh, or mayor, who is responsible for its good behavior and maintains order with the aid of a body of village watchmen. Only the richer inhabitants have dwellings with more than one story. Most of the peasants, or fellahin, live in little houses made of mud bricks.



Manley

LITTER AND GAILY DECORATED CAMELS OF A MOSLEM WEDDING PROCESSION

In this country the bride is usually considered the central figure at a wedding, but at a Mohammedan wedding in Egypt the bridegroom is by far the more important person. The ceremony is performed in privacy and only men are supposed to be present. The bride, who is represented by a male proxy, does not appear until after the ceremony when, dressed in gala attire, she joins the procession, sometimes riding in a camel-litter such as we see here. If the bridegroom be a man of wealth he will entertain all the male guests for at least two nights after the ceremony.



McLeish

ASSUAN, ONCE A TRADING CENTRE FOR THE SUDAN AND ABYSSINIA

Assuan is situated on the right bank of the Nile near the First Cataract, and not far from the town are the quarries whence the Egyptians obtained material for their temples and monuments. Three miles to the south of Assuan is the great dam across the Nile, by means of which a regular supply of water can be furnished to the thirsty land when the river is low.

THE GIFT OF THE NILE

crowded together. The villages are so packed with people that often the goats and the chickens spend their time amid the refuse on the roofs. In September and October, when the cotton is ready for picking, all the people work in the fields. The pickers stuff the cotton into the neck of their outer garment, which they have made into a pouch by tying it tightly at the waist. When the pouch is absolutely full they walk to the collecting ground,

untie the waist cord and let the cotton fall to the ground.

All the cotton is exported by way of Alexandria. This city, with its large harbor and fine new buildings, is about half the size of Cairo, but it is less Eastern in appearance. Modern hotels, as well equipped as those of New York, help to make the tourists comfortable while street cars, automobiles, electric lights and theatres make it seem hardly possible



HOW BUTTER IS MADE BY EGYPTIAN PEASANT WOMEN

© Cutler

Suspended by a long rope from the broken trunk of a date palm, the goatskin churn is swayed backward and forward. This method of butter-making is a very lengthy one, but the dairymaid is possessed of the infinite patience of most Eastern races. The goatskin imparts a peculiar taste to the butter which is most unpleasant to foreign palates.



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BUYERS AND SELLERS IN THE MARKET PLACE AT GIZEH, THE CAPITAL OF A PROVINCE

Tuesday is market day at Gizeh, and then people from many miles around come into the little town to buy and sell. There are very few booths or stalls as most of the merchants prefer to spread out their wares upon a cloth or upon the ground. In this photograph we can see the everyday clothes of the people—the felt skull-cap around which a yard or two of cotton cloth is twisted, and voluminous cotton robes. The sheiks and wealthy peasants often have their clothes made of brightly-colored striped silk, and wear a red fez with a blue silk tassel.



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MEAT MARKET IN THE LITTLE VILLAGE OF BEDRASHIEN

Wooden frames serve as display racks for meat in this little village in Egypt. The fact that the meat is open to blown sand and numerous flies does not concern the Egyptian for he is not particular in these respects. The peasants do not eat meat as a rule except during religious festivals or at such ceremonies as weddings.

that such a modern-looking place could have been founded over 2,000 years ago. A great many Europeans, especially Greeks, live here. Greeks are found living in all the Egyptian towns as merchants, shopkeepers, or money-lenders, but Italians, Armenians, Jews and, of course, Turks, Frenchmen and British, all go to swell the mixed population of the larger towns.

Most tourists who visited Egypt in former times landed at Alexandria but now many ships stop at Port Said on the eastern point of the Delta. Not more than fifty years ago, Port Said was only a small town but now it is the third largest city

in Egypt, due to the fact that it stands at the entrance to the Suez Canal. Suez, at the other end of the canal, has increased greatly for the same reason.

The Suez Canal, which unites the Mediterranean with the Red Sea, was built by French engineers under Ferdinand de Lesseps and was formally opened in 1869 with gorgeous festivities. The idea of connecting these two waterways did not originate with the people of the modern era as one might suppose since it was completed in comparatively recent times. An inscription on the temple at Karnak shows that the canal existed between the Nile and the Red Sea probably

THE GIFT OF THE NILE

as early as 1380 B.C. If it was important then, how much more important it is to-day, for without it the ships that ply between the western and eastern ports would have to make their way around the vast continent of Africa, thus adding several thousand miles to the voyage and many days as well.

Tanta, which is situated in the centre of the Delta, is celebrated as the burial place of a certain holy man, Sidi Ahmed el Bedawi, and for the fair which is held there annually in his honor. This fair lasts a week, and to it, from all over Upper as well as Lower Egypt, come the fellahin—men, women and children—by road and by rail, on foot, on donkeys and on camels.

The desert, which forms so large a part of Egypt, lies on both sides of the Nile Valley. That part to the east is a rocky waste and was once famed for its minerals. It was there that the ancient Egyptians got much of their gold. The Sinai Peninsula is another mineral-bearing re-

gion. The western, or Libyan, desert is a rocky plateau, where the winds are forever shifting the sands. Beduins roam these deserts, but as time passes more and more of these people are ceasing to be nomadic, and are settling down with their tents and their animals on the outskirts of the Nile Valley. In the western desert are several oases. That of Kharga grows enough food to support its inhabitants and is noted for its grapes and oranges.

When the World War began, the reigning khedive favored Turkey, so the British government promptly declared a protectorate over Egypt. In 1922, however, it was recognized as an independent state although Great Britain reserved certain rights regarding defense and interference of foreign powers. A cabinet was formed and a new constitution drawn up and for the first time in Egyptian history the title of king was given to its monarch. King Fuad is not without his troubles, for political parties and internal strife have kept this new kingdom in a state of turmoil.

EGYPT: FACTS AND FIGURES

THE COUNTRY

Bounded on the north by the Mediterranean, on the east by Palestine, the Gulf of Akaba and the Red Sea, on the south by the Anglo-Egyptian Sudan and on the west by Tripoli. The area including the Libyan Desert, the region between the Nile and the Red Sea and the Sinai Peninsula is 383,000 square miles; the population is 14,186,898 (1927 census); the cultivated area of the Nile Valley, Delta and Oases is only 13,574 square miles.

GOVERNMENT AND CONSTITUTION

Independent sovereign state with special relations to Great Britain because of the importance of British interests in the Sudan and in the Suez Canal. There is a king and a cabinet and a legislative assembly consisting of two houses. The country is divided into 14 provinces subdivided into districts. In 1928 the constitution was suspended for 3 years and the king rules as an absolute monarch.

COMMERCE AND INDUSTRIES

About 62% of the population are engaged in agriculture which is almost entirely dependent on irrigation. Grain, cotton, beans and sugar are the important products. Mineral products include phosphate rock, petroleum, manganese, iron ore. Minerals existing there are alum, copper ore, beryl, granite and sulphur. Exports are raw cotton, cottonseed,

onions, gold and silver bullion. Imports are tobacco leaf, flour, rice, iron and steel manufactures, coal, fertilizer and textiles.

COMMUNICATIONS

The Nile is the great highway and much traveling is done by boat. The railways, state-owned, have a mileage of 2,272; private companies own over 854 miles of light railways. Length of telephone wire, 131,860 miles; telegraph wire, 32,657 miles. In addition, 1,256 miles of telegraph wire is operated by a private company. There are 3,646 post offices and stations, and regular air mail service. The Suez Canal connects the Mediterranean and the Red Sea. Length 103 miles.

RELIGION AND EDUCATION

Moslems form over 91% of the population. In addition to Moslem mosques and universities at Cairo, Tanta, Damietta, Dessuqi (Dessuq), Assuit and Alexandria under the control of the Council of the University of El Azhar at Cairo, there are primary, secondary and special schools. There is also a state university.

CHIEF TOWNS

Cairo, capital, population, 1,064,567; Alexandria, 573,063; Port Said, 104,603; Tanta, 90,014; Mansura, 63,676; Assuit, 51,132; Fayum, 52,372; Zagazig, 52,351.



E. N. W. Slarks

THE COLOR OF CAIRO

Life and Glamor of Egypt's Historic Capital

THERE is a thrill in our first sight of Egypt. We know what an ancient country it is and we are anxious to set foot upon the land which has seen so many thousands of years of interesting life. A glistening white city first meets our gaze. That is Alexandria.

We shall not loiter at Alexandria. Somewhere beyond, on the banks of the Nile, lies the city of a thousand dreams, where from a cloudless sky the sun shines down upon all the races of mankind—for Cairo is a Tower of Babel if ever there was one—and upon such strange build-

ings as are only to be found in Eastern cities.

Already, gazing from the windows of the train that takes us from Alexandria to Cairo, we feel the spell of Egypt. Here are the palms, the green plains, the groups of dusky Egyptians, the string of camels and the sad, mouse-colored donkeys.

We are eager for the sight of Cairo, but when at last we really do see it—well, it is at first rather disappointing. A railway station is always a sad affair, even such an attractive railway station as Cairo's, and the way thence to the



Donald McLeish

ALL CAIRO SEEMS AT YOUR FEET FROM THE MOKATTAM HILLS

The finest view of Cairo is had from the Mokattam hills, which lie outside the city to the east. Immediately below us is the Citadel and its mosque, the central dome of which is flanked by two thin, pointed towers called minarets. This part dates from the year 1827; some of the outer walls were built by Saladin, who fought Richard Cœur de Lion.

hotel is not as a rule very much better. So it is with Cairo. We must wait a little while before we find the city for the fulfilment of our dreams.

While we are waiting let us glance at Cairo's history. It is not so ancient an history as many people think. The Pharaohs, Egypt's ancient rulers, had been

dead many years and the Pyramids were very old when the site of Cairo was merely waste land and sown fields extending from the Nile to the Mokattam hills. As far as it is possible to judge there were no buildings there except a couple of fortresses up to the year 641, when the Commander-in-Chief of the armies of



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ENTRANCE TO THE COURTYARD OF THE MOSQUE IN THE CITADEL

We have seen what the Citadel looks like from the top of a hill and now we are in the actual courtyard of the mosque itself. It is called the Alabaster Mosque because of the material of which most of it is built. Mehemet Ali, the "Napoleon of Egypt," had it constructed after capturing the fortress by placing cannons on the Mokattam hills and firing over the walls.

the victorious Caliph Omar captured the Roman fortresses and built a town, which he called Al Fustât. This was the first Mohammedan capital of Egypt.

Fustât, in Arabic, means "tent," and this is the story the Arabs tell as to how the name came about. When the victorious general marched north to capture

Alexandria he left his tent standing because he refused to disturb the doves that had commenced building there. On his return from the conquest of Alexandria he commanded his army to build their quarters around his tent which was still standing. From that fact the new settlement, which was the first Arab city of



CAIRO ON THE NILE is a great river port. We are here looking across the branch of the Nile between the island of Roda, on which we are standing, and that part of the city called Old Cairo. The craft moored along the farther bank are feluccas with their short masts and enormous

spars. The stone wall on the right is part of an embankment protecting a garden. Along the top of the wall visitors walk to see the famous Nilometer. This is a large stone well with a graduated pillar in the centre to indicate the rise and fall of the river.

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THE WATER SELLER with his goat skin bottle and brass cup is one of the commonest sights although waterworks now supply most houses, and here and there one can see a public drinking pipe jutting from a wall. The people still continue the old way of doing things. A squeeze from the water seller's elbow sends a jet of cool water from the shining nozzle.



Major Claud V. N. Percival

CAIRO HONORS THE HOLY CARPET ON ITS WAY TO MECCA

Every year thousands of Mohammedans make the pilgrimage to the holy city of Mecca, in Arabia, for it is the duty of every follower of the Prophet to go there at least once in his lifetime. The most sacred shrine of Mecca is called the Ka'ba, and it is always covered with a sacred carpet. This carpet is renewed annually and carried with great ceremony from Cairo.



F. W. Willis

CANOPY THAT GOES WITH THE HOLY CARPET TO MECCA

With the caravan bearing the holy carpet to Mecca goes this wonderful canopy called the Mahmal. It is made of wood covered with rich stuffs and ornamented with superb embroidery. But there is nothing inside it—it is simply a symbol of royalty. When the new carpet has been taken to Mecca the Mahmal is brought back with the old one.



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IN CAIRO BAZAARS the way is blocked with donkeys and mules, carts and carriages, besides the crowds of Egyptians, Arabs, Jews, Syrians and a sprinkling of European tourists. There is always a pandemonium caused by the shouting of the coachmen and camel drivers, as they try to clear the way, and by the haggling in the shops. Awnings above the crowd give shade.



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MOSQUE EL AZHAR, known as "the splendid," which can be seen at the end of the street, was converted into a university nearly a thousand years ago. Students come from all parts of the Moslem world to gain knowledge of the Koran. The enrollment is over ten thousand. Their ages range from fifteen to seventy-five for, indeed, some spend their lives here.



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MINARETS ABOVE ONE OF THE OLD CITY GATEWAYS

In this street a row of tumbledown houses hides one of Cairo's most beautiful mosques, the Mosque of El Muayyad. It was completed in 1422. The two tall minarets are seen rising above the southern gate of the old Fatimate city, called the Bab Zuweila. Fatima was one of Mohammed's daughters, and the caliphs descended from her are called Fatimate.

THE COLOR OF CAIRO

Egypt, came to be known as Al Fustât, "The Tent."

Fustât soon became quite an important settlement with mosques, palaces, barracks and the dwellings of an Eastern capital. The summer palace, where the emirs of Egypt often resorted to enjoy the cool breeze, stood on a spur of the Mokattam hills where the Citadel now stands, and another magnificent palace had been built by Ibn Tulun in the Royal suburb of Al-Katâ'i.

In 969 a new Arab conqueror came down into Egypt. He captured Fustât and laid the foundations of a new city. It is said that on a clear August night he marked out the boundaries of his new city on the sandy waste which stretched north-

east of Fustât, and a square about a mile each way was pegged out with poles. Each pole was joined by a rope on which bells were hung, and it was arranged that at the moment when the astrologers gave the signal that the lucky moment had arrived, the first sods were to be turned.

While the workmen were awaiting the signal a raven perched on one of the ropes and set the bells tinkling merrily. Straightway every workman thrust his spade in the earth and began to dig. At this moment the planet Mars, which the Arabs call Al-Kâhir, was above the horizon, and although this was looked upon as a bad omen, the raven's signal could not be ignored. The new city was called after the planet Mars, "Kâhirah"—mean-



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AN EXAMINATION IN THE MOSQUE OF EL MERDANI

Moslem students are chiefly concerned with learning all their work by heart. In this photograph a number of them are working at an examination. Everyone sits with seeming discomfort on the floor, for there are no chairs, and each has his pot of ink in front of him. This mosque was built by the cup-bearer to the Sultan En-Nasir about 1340.



DONALD MCLEISH

BLUE PORCELAIN fashioned into tiles makes this one of the loveliest of mosques and has given it the name of "the Blue." The tiles are arranged on the eastern wall of the Liwan, or sanctuary, which the visitor sees from the palm court. There are patterns of exquisite design. "Blue Mosque," or Ibrahim Agha Mosque, is situated near the Wezir Gate.



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TALL MINARETS, standing up against the sky, surround us on all sides if we climb up to the flat roofs of any of the houses in the centre of the city. From the doorways opening out on the galleries of these towers, officials, called "muezzins", appear five times every day—at dawn, noon, four o'clock, sundown and midnight—to call the Faithful to prayer



McLeish

IN CAIRO, SWEET HERBS ARE HAWKED FROM DOOR TO DOOR

The man, in Egypt, who will bring round his goods to the door is sure to find customers, for there it is so hot that most housewives are glad to be saved a journey into the crowded market. The girl to whom this hawker is trying to sell sweet herbs is not a Mohammedan or she would not let a man see her unveiled. The sculptured doorway is typical of Cairo.



© E. N. A.

BERBER PEDDLERS WITH BEAD NECKLACES AND FLY-WHISKS

In making a bargain with a Cairo huckster the buyer must have endless patience and considerable skill. The argument about the price of each article is enjoyed not only by the peddler himself, but equally by a crowd of spectators, who are always ready to gather round and watch a battle of wits. The Berber race is spread across North Africa.

ing "the victorious"—and out of this we have derived the modern Cairo.

Thus was founded the great City of the Caliphs, of which it presently came to be written: "He who hath not seen Cairo hath not seen the world: its soil is gold, its Nile is a wonder, its houses are palaces, and its air is soft, its odors surpassing that of aloes-wood, and cheering the heart, and how can Cairo be otherwise when it is the mother of the world?"

Just one word more on Cairo's history. It was captured by the Turks in 1517, by the French in 1798, by the British who handed it back to the Turks, in 1801, and in 1882, it was again taken by the British.

Until the year 1883 Cairo was a very fair specimen of a large Oriental city, where Eastern life and character could be observed with delightful ease. It was just an Eastern city, and nothing else—decayed palaces, dusty streets, a considerable amount of filth and that endless variety of color of which no Western institutions may ever rob it.

The people were tolerant, and became more so as they mixed to a greater extent with Europeans. Railways, telegraphs and other inventions of the Frange, or European, had shown them that the "magic" of the West was more powerful, and probably more useful, than their own.



G. E. N. A.

THE MOSQUE OF SULTAN HASAN—one of the finest in Egypt—stands on a shelving rock opposite the citadel. It covers more than two acres, and its loftiest minaret, 267 feet high, is the tallest in Cairo. This mosque, built in 1357, so pleased the Sultan that he had the right

hand of the architect cut off so that he could not design another. Next to it is the chief Liwan, or sanctuary, which is built on the side towards the holy city of Mecca. It is a madrasah, or school mosque, and classes for teaching Moslem religion and law are held there.

With these improvements the city began to develop rapidly. If a man who saw Cairo forty years ago were to revisit it to-day he would see for himself what a wonderful change has taken place, and how that change has been all to the advantage of Cairo.

The Mingling of East and West

Now these are matters of a more or less historical character. It is good to know something about them before setting out to explore and enjoy the wonders of the city. But even if we know nothing about them we shall be able to appreciate Cairo.

Impressions will crowd in upon us at such a furious rate that we shall hardly know how to sort them out afterward. This mingling of East and West, this jostling of strange and varied types of people and costumes, this jumbling together of buildings which seem like those only seen in dreams, this throb, throb, throb of one of the greatest cities in the East, will prove to be a source of endless delight.

But we shall not see much of all this in the European quarters—the Taufikia, the Ismailia and the Kasr-el-Dubara quarters, occupying the northwestern portion of the city. Here are the hotels, banks, ministerial offices, consulates, clubs and fine palaces of wealthy Egyptians and Levantines as well as of Europeans.

Where Aïda Was First Produced

In the centre of Taufikia is the Esbekia Garden, a beautiful park, with Opera Square on the south. In the Opera House, which is now shabby and brown colored, was first produced Aïda to celebrate the opening of the Suez Canal, and the costumes are still used when that opera is given. The Khedive Ismail, who nearly bankrupted the government, paid Verdi \$50,000 to write an opera for the occasion, but that was not his only method of celebrating, nor the only expense he incurred in connection with the great event.

Sharia Kamel is Taufikia's principal thoroughfare, its Fifth Avenue. Near the northern end is the famous Shepherd's

Hotel. Its terraced tea garden is a gathering place for a cosmopolitan crowd which comes to watch the colorful life in the street below. At its southern end, Sharia Kamel becomes Sharia Abdin which leads to the Midan Abdin, the palace of the present ruler of Egypt.

To the northwest of the European quarter is Bulak, the old part of Cairo, which is still kept very busy loading and unloading the produce carried up and down the Nile in strange ships. Like the rest of Cairo, the scene is bright and full of life.

Wonderful Palace on an Island

Bulak is easily reached by street car, and on the nights of popular festivals it is well worth seeing with its crowded streets, its gaiety and its curious customs. Just opposite is the Island of Bulak, commonly known as Gezira, where Ismail Pasha built a wonderful palace, such as those they used to build in the time of the Caliphs, and laid out a race course. The palace has now become an hotel, where the Khedival Sporting Club is always holding entertainments enjoyed both by Europeans and Egyptians. During the afternoon we see the main road to Gezira filled with people in carriages and motors driving out to "take the air."

The fine Kasr-en-Nil Bridge, or Great Nile Bridge, connects the island with the east bank of the Nile. Most of the different types of people who live or work in the city can be seen by standing on this bridge between 6:30 and 9 A.M. when it is crowded with merchants, market-gardeners and peddlers, dressed in the oddest costumes, and bringing in their wares to the markets of the city. The brown water of the Nile flows beneath, dotted with the peculiar craft of Egypt. Tall-sailed painted boats, called feluccas, sway gently in the morning breeze and wait for the afternoon when the bridge is opened to allow such vessels to pass up or down the river.

Near the eastern end of the bridge is the Cairo Museum, which contains the most valuable collection of Egyptian antiquities in existence. The body of



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FELUCCAS WAITING FOR THE SWING BRIDGE TO OPEN

Every afternoon the feluccas gather near the Great Nile Bridge to wait for its daily opening. The bridge is then closed to road traffic for about one and a half hours. So that all may be informed, the exact time is proclaimed by notices put up at each end. In the morning a crowd of country folk may be seen crossing the bridge to go into Cairo's markets.

Tutankhamen and the priceless articles, pictured with the chapter on Ancient Egypt, are on display here. We may see also the mummies of Egypt's mightiest Pharaohs so well preserved that one may even tell the color of the hair. The museum was started through the efforts of Auguste Mariette, a French Egyptologist, and a statue of him occupies a place in front of the museum.

Then we come back to the main streets. What do we notice? A visitor from the West will probably feel quite at home with the kodak shops and pharmacies but will be impressed by the way Cairo seems to live in the streets. The innumerable cafés of the Esbekia place their chairs and tables on the pavements, so that it is frequently necessary for a passer-by to step into the road, and run the risk of being knocked down by an arabiyeh, or carriage, dashing through the street at the absurd rate these Eastern drivers love so much.

Backgammon for a Cup of Coffee

These cafés are interesting, since in them will be found people from almost every quarter of the earth. Here are groups of Italians, Greeks and Levantines arguing noisily or drowsily smoking the bubbling nargileh (water-pipe), or playing a kind of backgammon for the price of a cup of coffee.

As we continue through the streets, every step will reveal a new and fascinating picture. Odd little shops, protected from the sun's glare by torn flapping awnings, catch the eye. Not that the goods displayed for sale are always particularly attractive but the dark interior has an air of mystery and the promise, not often fulfilled, of strange merchandise. Now comes a door with a bead curtain jingling in the breeze—probably a barber's shop. A mass of color piled among the shadows of a hole in the wall proves to be a fruiterer's. Next to it is a native café with pitch-black Ethiopians and tall Nubians and a dozen other varieties of modern Egypt's many races.

The streets, of course, are choked with a motley crowd in which only the camel

or a lonely Arab from the desert seems able to maintain any dignity. The drivers of vehicles and beasts of burden keep up an incessant shouting as they thread their way through the crowd. "Make room, O my mother!" calls a shrill-voiced donkey-boy. "O Sheik, take care!" "You, good fellow, to your right!" "By your favor, effendi!" and so on.

A Street of Saladin's Days

There is even more bustle in Cairo's bazaars than in the streets. From the Ismailia quarter, the way down to the bazaars is through the Muski, an extremely long thoroughfare running toward the east. A tradition says that the Muski dates from the time of the famous Saladin, who was the Crusaders' chivalrous foe.

Its character has changed a good deal in recent years, and many of the native shops with their quaintness and smells and sleepiness have been replaced by large shops built on the French pattern with plate-glass windows. At one time practically the whole of the street was roofed in, and on very hot days it proved a cool, if crowded, retreat. On festival days one sees representatives of many lands, from Sweden in the north to the White Nile in the south, and from India in the east to Morocco in the west.

Motley Carnival of Cairo

It is one of the most characteristic parts of Cairo—a carnival in which the costumes of Europe, Asia and Africa mingle in a fascinating collection. At first it is a little confusing. Here are Turks, grinning Negroes from the Sudan, bored-looking fellahs, or peasants, in their bright rags, wily Levantines, green-turbaned Sherifs, or Moslem holy men, dignified Beduins, and people whose race it is often difficult to guess. All day long the street is packed with donkeys, strings of camels, loaded wagons, water-carriers with their tinkling glasses, sherbet and sweetmeat sellers, carriages and richly caparisoned horses, porters shaped like sickles, from the burdens they carry, gorgeously-dressed Jewesses, beggar chil-



Donald McLeish

CUNNING CRAFTSMEN AT THEIR BEAUTIFUL
Cairo's chief shopping district is situated round about the street called the Muski. The various bazaars lead off from this highway, which is itself bordered by shops. Merchants of the same trade are all found close together, and in the tent-makers' bazaar the visitor can see the

WORK IN THE BAZAAR OF THE TENT-MAKERS

goods being made. But much of the finely colored stuff sold here as native work comes from France and England. The ornamental work consists of wall-hangings, pillow-covers, tent-linings and awnings. The interesting patterns are copied from the old Egyptian models.



Donald McLeish

METAL WARE AND WEAPONS FOR THE SOUVENIR HUNTER

A shop of curiosities displays a great variety of goods before the visitor who happens to wander down this "souk," or bazaar. There are fly-whisks, shovel-headed spears, swords that the merchant will tell you were found on old Crusading battlefields and relics that he says were taken from the Pharaohs' tombs, but it is not wise to believe all he tells you.



Donald McLeish

A GAME OF CHECKERS IN A COURTYARD OF OLD CAIRO

It is known that a game very like checkers was played in ancient Egypt thousands of years ago, and so it is not surprising to find one of our own games played to-day as far away as Cairo. One of the men is holding the mouthpiece of a nargileh, or water-pipe, used for smoking tobacco in the Near East. The tobacco is burned in the canister at the top.

dren, closely veiled women and all the odds and ends of Cairo's astonishing medley. The ring of hammers is almost deafening in the bazaar of the Brass Workers; and a strong smell of perfume comes from the Scent-Sellers' bazaar. In the Spice Market men pound strange roots and herbs in metal mortars. Beautiful rugs from Damascus, Ispahan and Samarkand can be seen in the carpet shops.

The buildings of Cairo are as interesting as the people, and as full of color.

"Every step tells a story of the famous past. The stout remnant of a fortified wall, a dilapidated mosque, a carved door, a Kufic (Arabic) text—each has its history, which carries us back to the days when Saladin went forth from the gates of Cairo to meet Richard on the plain of Acre, or when Beibars, the Mameluke captain, rode at the head of his cavalry in the charge which trampled upon the Crusaders of Saint Louis."

In the old Fatimate city is the great



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SHOEMAKER CUTTING OUT LEATHER IN HIS TINY SHOP

This photograph gives a good idea of the native workshop. There are, of course, stores and factories in Cairo as up-to-date as any elsewhere, but in the bazaars there are still little dens with hardly room for the proprietor and his stock, and none at all for a customer. The shelves are filled with the red slippers with upturned toes that are the usual native wear.



© Ewing Galloway

SERVING MEN WHO RUN BEFORE A CARRIAGE TO CLEAR THE WAY

Cairo's streets are so crowded in places that many of the wealthy Cairenes, as the citizens are called, still have runners to clear the road in front of their carriages. The barefooted runners are dressed in bright colors, and use both voice and stick. In the East time is not thought very important, and folks must have "hurry" explained to them rather forcibly.



© Ewing Galloway

FARMER AND FAMILY UP FROM THE COUNTRY TO SEE THE SIGHTS

Sometimes the farmers in the neighborhood of Cairo come into the city on business, and then their wives and families have an opportunity of seeing the great city. The children will never sit down quietly to watch the new sights, any more than the children of our country, and so they have a special kind of crate in which they can stand up safely.



Donald McLeish

HOW MOTHER USUALLY CARRIES BABY IN CAIRO

Walking about the native quarters one notices that mothers carry their babies either clasped to one hip or else astride their shoulders. The cloak of the woman is usually dark blue and the face veil is made of a coarse kind of black crepe kept free from nose and mouth by a little cylinder of gilt wood. Notice the Arabic writing on the door.

mosque-university of El Azhar, which was built by Gohar in 973. It is considered to be the most important Mohammedan university in the world, and students come to it from many different countries, but it is so arranged that those of the same nationality live and study together. There are over three hundred teachers, and sometimes the students number as many as ten thousand.

The Voice from the Minaret

Let us look at some of the other buildings. Every visitor to Cairo will remember the blue tiles of the Ibrahim Agha Mosque, the wonderful doorway of the Sultan Hasan Mosque, and the delicate ornamentation and graceful minaret of Kait Bey. The Arabs had a very fine taste in art, as we cannot help but notice as we go about the city. Then, there is the Arab Museum which has a valuable collection of Arabian art and a fine library, both of which have helped to make Cairo the premier city of Arab learning.

We shall now go up to the Citadel on the Mokattam hills and look out upon the wonderful panorama of Cairo which is spread before us. We see below us a forest of minarets, rising gracefully from the flat-roofed, yellowish buildings in which the streets are like pathways of darkness. From these slender minarets, rising from Cairo's 250 mosques, goes out the call to prayer, not, as with us, by the ringing of bells but by the human voice.

The Citadel, built, so some believe, from stones taken from the Pyramids, was once the key to fortified Cairo but now it is worthless as a military stronghold. Its greatest feature, apart from the view it offers, is the Mehemet Ali Mosque with its two wonderfully slim and beautiful minarets.

How the Mamelukes Were Betrayed

The most direct road to the Citadel used to be through the Gate al-'Azab, and then along a narrow track walled on each side. It was in this narrow way that the massacre of the Mamelukes, a ruling class of soldiers in Egypt and who were the descendants of slaves, took place on

March 1, 1811. All the Mamelukes of any position or power were decoyed into the Citadel on the pretense that they were to assist in celebrating the appointment of Tusun, son of Mehemet Ali, to the command of the army.

Having taken coffee, they formed in a procession and marched down the narrow way with a body of the Turkish Pasha's troops in front and behind. As soon as they arrived at the exit gate, it was suddenly closed upon them. The Pasha's men at various vantage points then opened fire, and those Mamelukes who tried to escape were cut down by the sword.

It is said that of the 470 Mamelukes who entered the Citadel, only one came out alive, having made his horse leap through an opening in the wall to the moat below. The horse was killed by the fall, but the man escaped.

Revered Mosque of 'Amr Ibn al-'Asi

The first mosque to be built in Fustât was that raised by 'Amr Ibn al-'Asi, who conquered Egypt in 639 A.D. The present mosque of 'Amr stands on the same site, but has very little of the original building in it. It is not very attractive but the people hold it in special veneration. It is said that, after a long, disastrous drought (1825-28) Moslems, Christians and Jews went there together to pray for rain. On the next day it rained. The credulous believe that one of the pillars was made to fly through the air from Mecca to Cairo by a blow from Mohammed's whip.

All through this glittering city you will find strange monuments of the people—mosques in plenty, old Arabic gates, an endless medley of bazaars all hung with the brightly colored merchandise of Eastern lands, ancient churches founded by the Copts, which was the name given to the earliest native Christians, mysterious lattice windows—all the fascination associated with the Orient, piled up like the jewels in Aladdin's cave.

And just a stone's throw away, on the threshold of the Libyan desert, the Sphinx looks out unceasing to the dim minarets of the city, and the Pyramids rise like golden stairways to the blue of the sky.

TWO INDEPENDENT BLACK NATIONS

Abyssinia (Ancient Ethiopia) and New Liberia

Africa has two small groups of independent black peoples. The Republic of Liberia was formed in 1847 from a colony established on the west coast in 1822 under the auspices of the American Colonization Society that black plantation hands and domestic slaves might be repatriated. Although it has valuable natural resources, its career has not been without its setbacks. Abyssinia, lying between the Anglo-Egyptian Sudan and Somaliland, is the ancient independent Empire of Ethiopia, whose king claims descent from the Queen of Sheba. Liberia is a country of steamy dark forests and rubber plantations; Abyssinia has been called the Tibet of Africa, with what justice we shall see in the chapter which follows.

OF Africa's black millions, two peoples are independent of any European power. The Republic of Liberia, on the west coast, began as a refuge for freed slaves from the United States. The Kingdom of Abyssinia was recognized as independent in 1896, but as ancient Ethiopia it has retained its customs and integrity (with some changes of boundary line) since probably 1000 B.C. and possibly longer. Indeed, the tradition is cherished that their rulers are sprung from Solomon and the Queen of Sheba, Makeda. While the Ethiopian is black-skinned and kinky-haired, he is not Negro, save by inter-marriage. His ancestors probably came from ancient Judea and Arabia, though there have been waves of Semitic invasion. His speech is principally one of the ancient Semitic tongues, Amharic. Christianity probably reached Ethiopia in the fourth century and the church to-day is a powerful one, with a numerous priesthood. But a good two-thirds of the population are Gallas, one of the subject tribes, probably of Hamitic origin, though light in color.

While Abyssinia is still feudal, the trails are little more than cow-paths, and there are no towns in our sense of the word. King Menelik II, who ruled from 1889 until 1913, unified the warring groups and prepared the way for the modernization of political institutions which the young King Regent, Tafari Makonnen, crowned in 1928, is undertaking. While domestic slavery is recognized, an edict of 1924 provides for emancipation.

Abyssinia, a land larger than France, owes its long integrity in large part to its situation upon a mountain stronghold and in part, no doubt, to its fine climate, which has kept its people energetic—ready to fend off all comers. It is a land through which one can ride on horse-back, with a train of pack-mules and numerous native servants, guides, interpreters and armed guards—the last named because of the bandits armed with spears who still make forays upon enemy tribes.

The mountain forests contain great drooping cedars and stately yews as well as unusual specimens like the kosso (*Hagenia*), with pink flowers which hang like gigantic bunches of grapes. Everything is gigantic, even to the heather and the mountain thistles. Coffee grows wild in parts of Ethiopia, as does rubber, though "long berry Mocha" is also cultivated. Indeed, coffee probably originated in Kafa, and was not known elsewhere until the fifteenth century. Bananas also are grown. To the south and west there is bamboo, which enables people to build better huts than the grass hives of the grazing regions, as well as bridges for the smaller streams. The larger rivers have to be forded or swum.

It is near the centre of Abyssinia that the Blue Nile (the Abbai) takes its rise and the spot is revered by the natives. This river separates off the northern provinces, as during a large part of the year it is entirely impassable; its canyon with walls five thousand feet deep at one place can be entered only at long intervals and is still largely unexplored. Its wild life

TWO INDEPENDENT BLACK NATIONS

includes leopards, monkeys, especially the big white-bearded Guerezas, and mountain antelopes (Nyalas). Leopard and monkey skins are items of export. The birds are colorful, especially the flocks of little pink bee-eaters.

Addis Ababa, chosen as the capital in the nineties, a rambling place with the cool nights of over eight thousand feet in altitude, receives swaying camel caravans from the interior of Africa, but these now jostle small honking automobiles of a familiar make. Cattle, sheep, dogs and chickens also make free of the main highways by day; but at night all is dark and silent, save for the howling



A REAL FUZZY WUZZY

Harris

Her way of gumming her hair over a framework connects her with the Beja Nile race and the Baggara Fuzzy Wuzzies who were broken at Omdurman by Lord Kitchener.



LION-HUNTER WITH TWO CUBS

Although Abyssinian lions are usually timid, they steal cattle, and so are killed. This fuzzy-haired Issa tribesman spears the parent lions, but keeps the cubs to sell for pets.

of hyenas and an occasional leopard, and the natives are forbidden to be out.

As for Liberia, in 1822 a shipload of Christian Negroes embarked for the west coast of Africa and on arrival made a



C. F. Rey

ABYSSINIAN PONIES, A BREED PECULIAR TO THE COUNTRY

Apparently a distinct breed, the Abyssinian horse is in size about equal to an English polo pony and in some ways resembles the Arab. The natives who, as a rule, prefer mules, ride their ponies unshod, although the going is often of the worst. The small horses are natural jumpers, good-looking and well built. In color they are prevailingly gray, sometimes black



C. F. Rey

ABYSSINIAN CATTLE, AN UNEXPLOITED SOURCE OF WEALTH

Vast herds of cattle roam the plains of Abyssinia, but few, if any, are exported. The native mind holds the possession of livestock more valuable than an accumulation of money, and every animal that leaves the country is merely considered as having been lost for either food or breeding. These animals are small and have the hump common to most African cattle.



Major A. W. Bentin

A GREAT GATHERING AT THE BENEDICTION OF WATERS BY THE PATRIARCH OF THE SOUTHERN CHURCH

At the Feast of the Epiphany there is a large concourse of people at Addis Ababa, capital of Abyssinia, to see the Patriarch of the Shoa Church bless the waters. The rite is the same as that of the Greek Church, but the Southern Abyssinians, who are deeply tinged with Negro blood, regard their priests in the light of holy witch doctors, and to them the annual ceremony of the benediction of waters is a display of miraculous power. By probably as early as the fourth century Christianity reached Ethiopia (Abyssinia) from Egypt, and has persisted.

TWO INDEPENDENT BLACK NATIONS

bargain with some native chiefs by which they exchanged twelve knives and other considerations for a strip of coast. The natives, when they saw that they had made a poor trade, tried to expel the newcomers, but the ex-slaves managed to hold their own; and in 1847 became the Free and Independent Republic of Liberia.



The republic now has fully 350 miles of coastline. It is a land of dense tropical forests in which a deep green twilight reigns and the huge tree trunks are swathed in creepers. The creeks are lined with mangroves, the roots of which writhe fantastically into the swamp. There are also high grasslands. Few people have penetrated into the interior of the republic. Even around Monrovia, the capital town, there are few roads, and as these approach the bush they degenerate into jungle tracks. Many of the tribes have a hearty dislike of roads, for experience has taught them that good roads mean a frequent appearance of the tax collector, backed up by a company of the Liberian Frontier Force, as Liberia's black army is called.

The Liberians—that is, the Negroes of American descent—form but a small part of the population and live only along the coast. Indeed, it is unsafe for them to go inland without an escort, as many of the inland tribes hate them as interlopers, and they are outnumbered by the aborigines.

These latter are composed of many tribes, such as the Krus, the Kpwezi and the Mandingos. Let us take the Krus first—also called Croos, Krev, Kroomen and Krooboy. For centuries they have hired themselves out as sailors to European ships. These Krus are Christians and speak English. They are an intelligent race.

The Mandingos live on the inland plateau. They have Arab blood in their veins and they dress picturesquely in flowing white robes and heelless slippers. They are Mohammedans and successful missionaries of their faith, and in this work they have done a good deal with those Liberian tribes which were cannibalistic.



E. E. Burgess

PUBLIC BUILDINGS IN ADDIS ABABA

Below is the Coptic Church of St. George; above is the Bank of Abyssinia. One finds it hard to imagine that the streets of the capital are thronged with camel caravans, as well as honking Ford machines.

for in the remote depths of Liberia, cannibalism still exists, and the Mas tribes, who occupy the Grand Bassa country, were, until recently, openly addicted to dining off their fellows. Though they have now abandoned their degraded practice, most of the older people have devoured at least the flesh of captives of war.

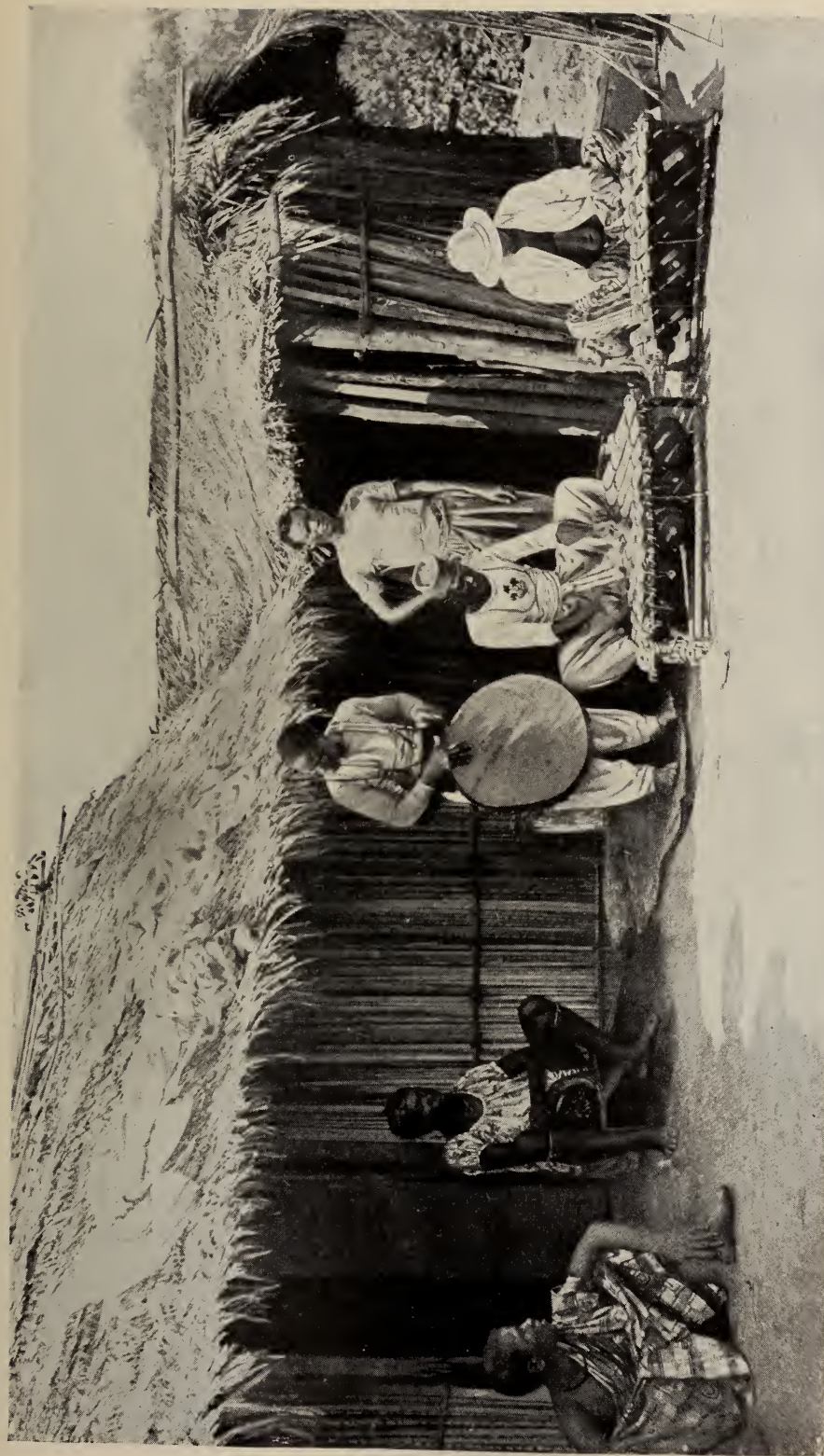
The most powerful tribe of Liberia is



E. E. Burgess

STREET AMONG HOUSES OF MUD AND STONE IN THE HILL TOWN OF HARRAR

Harrar, with a population of about fifty thousand, is built on the side of a hill. An ancient city, it is the centre and market town of the province of the same name. A track leads to Dire-Dawa, from which the railway runs to the French port of Jibuti, on the Gulf of Aden, less than two hundred miles away. A stone wall encompasses it, protected by twenty-four towers and entered by five gates. Coffee is grown and exported.



DUET UPON BALAFONS RENDERED BY MEMBERS OF A VILLAGE BAND IN LIBERIA

© E. N. A

Two men are seated before strange-looking instruments which the natives of Liberia call balafons. The keys are made of hard wood and beneath them are several gourds which act as sound-boxes. Similar instruments are used in other parts of Africa and in Central America.

These houses are walled with slabs of palm midribs or with palm fronds worked into a wattle framework; they are thatched with palm fronds, leaves, grass and reeds. Nearly all Liberian villages have a half-open guest house and most of them are stockaded.



© E. N. A

KEEPERS OF THE PEACE AMONG THE UNRULY TRIBES OF LIBERIA'S WILD INTERIOR

Many of the tribes inhabiting the little-known interior of Liberia have scant respect for law and order and still believe that might is right. To keep the peace among these people the government raised a Liberian Frontier Force. This body of men is officered mainly by Negroes who

have served in the United States Army. There is also a militia, but as the members are armed with a variety of weapons and are comparatively undisciplined, there is still room for improvement. The uniforms of the militia are almost as varied as their weapons.

TWO INDEPENDENT BLACK NATIONS



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TWO SMART CITIZENS OF LIBERIA

Lengths of cotton cloth of vivid hue form the clothing of these two men. Their battered hats are considered nearly enough, save for gala occasions.

Outside the coastal strip hats are superfluous.

the Kpwesi. They are hunters and warriors and, contrary to the usual native mode of waging war, they disdain ambushes, but charge straight at their foes in mass formation. They use bows and arrows for hunting, but fight only with long knives. They are a musical race and, besides beating the inevitable tom-tom, play the harp and the flute. They are also expert in various crafts and show considerable taste in decorating their products.

The natives, as a whole, exhibit considerable hostility toward their Liberio-American overlords, and much desultory warfare has occurred

in recent years. In 1915 the Krus broke out in a rebellion which cost many lives before the Liberian Frontier Force, led by Negro officers borrowed from the United States Army, defeated the insurgents.

Monrovia, the capital of Liberia, is built on the shores of a lagoon. It is not a healthful town for white men and there is a scarcity of fresh food. The trying climate makes even trivial wounds and scratches dangerous, and malaria is prevalent. Monrovia possesses some fine buildings, but, generally speaking, it is a town of contrasts, for well-built houses are often scrappily finished off with galvanized iron streaked with rust. The houses are usually built with balconies and piazzas similar to those attached to



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A KRUS OF MONROVIA

In Monrovia, the capital of Liberia, people usually dress in gaudy colors and barbaric designs, fashioned in European style. This is a village belle.

TWO INDEPENDENT BLACK NATIONS

houses in the southern states of America, and the gardens are gay with scarlet hibiscus blooms. Monrovia is the seat of the Liberian government. It is divided into five long streets which rise one above the other parallel to the waterfront.

On one side of Monrovia is a large colony of Krus, living in palm-thatched huts. There the Krus, or Krooboys, as they are called, stay during the short intervals between their voyages.

Recently a rich American rubber company acquired a huge tract of land in Liberia and is planting millions of rubber trees. Such an undertaking cannot but have a good effect on the financial condition of the country, and Liberia, already modeled politically on the United States of America, should derive further benefit from acquaintance with the enterprise of modern commerce. The above mentioned rubber company is not involved in the alleged forced labor condi-

tions which an international commission has been asked to investigate.

Liberia joined the Allies in the World War. Most of the trade had been controlled by the Germans, who had established a wireless station at Monrovia and had begun the construction of railways—the only ones in the country—at the capital and Boporra, in the county of Montserrado.

The Republic of Liberia, which was established in 1847, may not as yet have advanced far along the road to civilization, but its people have overcome many difficulties, and its continued existence is a proof of its vitality.

Touching Abyssinia are two Italian colonies, Eritrea to the northeast and Italian Somaliland to the southeast, which have not been mentioned elsewhere. So far they have been of little importance. The main facts regarding them are given in the summary below.

ABYSSINIA AND LIBERIA: FACTS AND FIGURES

ABYSSINIA

An inland country and empire of northeast Africa; bounded on the north by Eritrea, west by the Anglo-Egyptian Sudan, south by Kenya Colony, southeast and east by the British, Italian and French possessions in Somaliland and on the Red Sea. Political institutions are of a feudal character. Total area, 350,000 square miles; population, about 10,000,000. Chief industries are agricultural and pastoral. Forests contain valuable trees; iron, gold, coal, copper, sulphur and potash salts are found. Chief exports are hides and skins, coffee, wax, ivory, civet and native butter; imports are textiles, corrugated sheets and bars, hardware, cement and kerosene. Railway mileage, 488; length of telegraph line, 2,000 miles. The Abyssinians are Christians. With the exception of a few mission schools, education is restricted to the teaching of the clergy. Population of chief towns: Addis Ababa (capital) has a native population of 60,000 to 70,000; Harrar, about 40,000; Dire Dawa, about 30,000.

LIBERIA

Negro republic in West Africa extending along the coast of northern Guinea between Sierra Leone on the northwest and the Ivory Coast on the southeast. Executive power vested in a President and a Council of 7 ministers; legislative power in a Parliament of two houses. Total area, about 43,000 square miles; total population estimated at 2,000,000

to 2,500,000. Agricultural, mining and industrial development slight. Chief exports are palm kernels and oil, piassava fibre, rubber, coffee and ivory; imports are rice, hardware, gin, tobacco, building material, clothing and fish. Means of communication are poorly developed. The Americo-Liberians are all Protestants. Government educational system supplemented by mission schools. Capital is Monrovia, population, including Krutown, about 10,000.

ITALIAN SOMALILAND

Italian colony on the east coast of Africa, bounded north and east by the Indian Ocean, south by Kenya Colony and west by Abyssinia and British Somaliland. Administered by a Governor. Area, about 190,000 square miles; population, about 1,200,000. Agriculture and livestock-raising are important occupations. Chief exports are sesame, oil, gum, hides and butter. 29 wireless stations. Mogadiscio, the capital, has a population of 25,000.

ERITREA

Italian colony on the coast of the Red Sea. Bounded inland by Anglo-Egyptian Sudan, Abyssinia and French Somaliland. Administered by a Governor. Total area, 45,754 square miles; population, about 393,000 exclusive of 4,681 Europeans. Agriculture, pearl-fishing and gold-mining are carried on. Population of Asmara, seat of government, 14,711.

BRITISH AFRICA FROM WEST TO EAST

Following the Flag Across the Continent

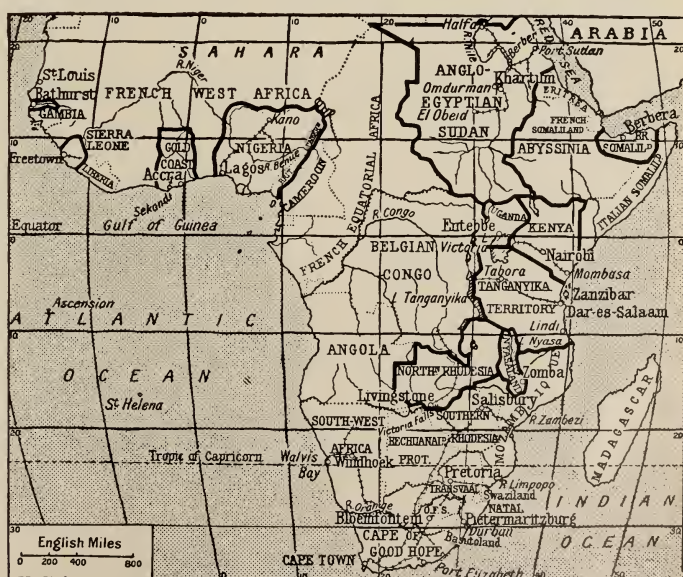
Very few of us could give, offhand, a list of the British possessions in Africa, remembering especially the changes in the map made by the World War. In this chapter, however, we shall learn a good deal about these, as we are to take a journey from Gambia, on the Atlantic coast, straight across the great continent to the Indian Ocean and then down to northern Rhodesia. The map will show us that the territory under British control does not form the unbroken belt from west to east which it does from north to south. In these far-stretching lands we shall find that many and strangely different races of people are living under the protection of the Union Jack.

IF we look at a map of Africa fifty years old we shall see that the central zone appears to be inhabited only around the coast. The rest has very few names, and some parts are blank. The land is vast. The early explorers lost their way in tropical forests, died of disease, or were killed by savage beasts or still more savage natives. Therefore tropical Africa was thought of only as the land of Nature's splendor and cruelty, of gold and elephants, slaves and cannibals. The map of to-day shows us two groups of lands, west and east, lying between the tropics, under the British flag. The group to the west is the older, and we will therefore start with Gambia, the earliest of the British African possessions.

Nearly five hundred years ago, Portuguese sailors exploring the coast found here a wide river with a few islands in its estuary. In 1618 James I granted a charter to a trading company called the Merchant Adventurers of London. These men built a fort on an island which they named St. James' Isle, and so started the first little settlement. To-day the British colony has moved to St. Mary's Island, where there is a town, Bathurst, with the most modern comforts and enjoyments. On the mainland, on both sides of the river for over two hun-

dred miles, lies a strip of country from perhaps six to forty miles wide, which, in 1888, became a British Protectorate—that is to say, it is a country occupied by natives under native rulers, but Great Britain is responsible for seeing that the native princes rule justly, and for protecting the country from foreign attack.

Suppose we go by steamboat straight up the river. We shall pass first through dense forests of mangroves, a tree of the swamps. Then the mangrove forests thin out, and here and there in the swamps rise higher patches of cultivated land. Finally we come to fertile plains over which roam great herds of cattle. The native counts his wealth by cattle, not by money, and Gambia exports hides and skins.



PLACES WE VISIT IN THIS CHAPTER



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THE MARKET OF FREETOWN, SIERRA LEONE'S CAPITAL

Freetown, which was founded in 1788 as a home for freed slaves, is now a very busy city with a native population of well over thirty thousand and the best harbor of all Africa's west coast ports. Nearly every woman who has anything to carry balances it on her head.

This practice has given the African native an upright and graceful carriage.

We see other plains given up to the cultivation of the nut which we call the peanut. When the flower of this plant dies, the seed-pod pushes itself into the ground, ripens there and has to be dug up; so it is also called the "ground-nut." In olden days Gambia exported slaves, elephant tusks, wax, rubber and palm kernels; but now the natives are finding that growing the ground-nut pays so well that, apart from millet and rice, they do not trouble much about other products.

The natives are real Negroes, with black skins, flat, broad noses, woolly hair and thick lips; they wear next to no clothing, and, apart from a few mission schools, have no education. They are pagans and believe only in magic and witch doctors.

French territory separates the British West African settlements from each other, and we must sail along the coast to reach Sierra Leone, which is about 180 miles from north to south, though it does not extend far inland. The colony con-



McCam

MOHAMMEDAN SCHOOLMASTER OF BIMBUKU, A VILLAGE OF ASHANTI

Ashanti is the name given to the middle part of Gold Coast Colony, which lies between the Gold Coast proper and the Northern Territories. It is called after its fierce warlike people. Like their near relatives, the Fantis of the coastal districts, the Ashantis are mostly fetish worshippers; but some have been converted to Christianity, and some to Mohammedanism.



McCann

QUEER GOD WORSHIPED BY THE FANTIS OF WASSAW

The Fanti people, who live in Gold Coast Colony, are great fetish worshipers—that is, they believe that powerful spirits inhabit certain striking natural objects or such images as this, which is worshiped in a village of Wassaw district. These spirits or fetishes, unless they are appeased, will, the Fantis believe, do them great harm.

sists of one or two islands and a peninsula. All the West African coast was connected with the slave trade; for three centuries natives were captured or bought here and taken away into slavery by European nations, Britain included. About 150 years ago British people began to feel that this cruel trade was wrong, and in 1788 a British man bought land on the peninsula from the native king and made on it a settlement which he called Freetown, as a place of refuge for liberated slaves. Later on British merchants set-

tled here, and to-day Freetown, which is the capital of Sierra Leone, is a large, prosperous town, with schools and a university. Its harbor is the best on the West African coast.

The country inland became a British Protectorate in 1896. As the rivers are not navigable for any great distance, we shall have to go up country from Freetown by rail, and if it be December or January we shall be much bothered by the Harmattan, a dry dust-laden north wind blowing from the Sahara Desert.

We notice that the natives are not all black. Indeed, several of the tribes to the north and east are fairly light-skinned. Some of the northern tribes are Mohammedans, but the majority of the natives are pagans. We shall see them all very busily at work in the fields and forests, tending their cattle or their plantations of ground-nuts and rice, cassava and kola-nut trees, or collecting the natural products, mainly palm kernels, ginger and rubber. Platinum is also found.

From Sierra Leone the steamer must take us some distance south and east to

the Gold Coast. This settlement was started with forts erected along the coast by various European nations; but Great Britain bought the land from Holland in 1871, and it became a British colony. Frequent quarrels with Ashanti to the north, particularly concerning human sacrifices, led at last to war with that country; and finally Prempeh, the king, was deported, and in 1901 Ashanti was annexed, while the country still farther north, which is now known as the Northern Territories, became a protectorate.

When the people found that the new



McCann

DRESSING-ROOM OF A YOUNG LADY OF THE GOLD COAST

The Fantis are said to be the most intelligent of all the Negro tribes. They are peace-loving, too, and are occupied in fishing from canoes and cultivating the ground. Their skin is chocolate colored, and they have the Negro's characteristic woolly hair. This young woman is arranging hers in the most popular fashion—in two stiff horns.



McCann

IN ASHANTI, THOSE WITH GOODS TO SELL AND THOSE WHO WANT TO BUY FLOCK TO KUMASI'S MARKET

Kumasi, the capital of Ashanti, in Gold Coast Colony, is a very different place now from what it was in the days of the slave trade, for the Ashanti people were then the terror of all West Africa. Those slaves they could not sell at once they offered as sacrifices to their god, Tando.

Kumasi is now the terminus of a railway from Sekondi, and trades, not in slaves, but in cocoa, kola nuts, rubber and cattle. Gold is mined near by, and formerly all the gold dust that fell to the earth in Kumasi's market belonged to Ashanti's king.



A HORSEMAN OF THE DESERTS IN SOKOTO, NIGERIA

Sokoto is the northwestern province of Nigeria, where it touches the Sahara Desert. This dark-skinned cavalrman is wearing a typical face-cloth, which he draws up over mouth and nostrils to keep them free from the dust of the desert. His enormous shield is made of ox-hide and to his reins are tied charms to protect him from magic.

rulers were more just than their native kings, they settled down quietly. Even Kintampo, an important town farther north, which was one of the great slave markets of this part of the world, became peaceful and decided to trade in kola-nuts instead of slaves. The Ashanti and the Fanti are chiefly of a warm, dark brown color. There are high schools and training colleges along the coast, but elsewhere the natives are largely uneducated and heathen. They are loyal to Britain and during the World War it was not necessary to leave soldiers here to keep order. King Prempeh was allowed to return in 1924 to end his days at home.

If we land at Sekondi we can take the railway to Kumasi, the old capital of Ashanti. Near here is found the gold which gave the Gold Coast its name.

In towns the people find employment making baskets, pottery and cloth and working in leather and metals. Most of the big towns are linked up by telegraph, and where the railway ceases, motor roads take its place. Gold, valuable timber (cedar and mahogany), kola-nuts, grain, palm oil and palm kernels are exported, but about thirty years ago someone started growing cocoa, and now the cocoa industry is fast becoming the main source of the world's supply.



THEY SELL MATS MADE OF PALM FIBRE IN THE MARKETS OF BORNU, NORTHEASTERN NIGERIA

Bornu is another of the northern provinces of Nigeria, separated from Sokoto only by Kano. It is a very dry and very hot plain, but as water can generally be reached by boring wells, it is fertile, and yams, ground-nuts and beans, as well as fibre mats, are brought on the back of ox or

donkey to its many markets. The mats are delicately plaited and are often ornamented with beautiful colored designs. The people of Bornu are such keen traders that they sometimes hold these great open-air markets at night, by the light of tiny oil lamps.



THE HOUSE OF JUSTICE AT KANO, CAPITAL OF KANO, NIGERIA

All the houses of Kano are built, as this Court House is, of mud, even the Great Mosque and the Emir's palace, which covers about thirty acres. The houses are decorated by strange patterns drawn on the mud before it is baked as hard as stone by the sun. There is a high mud wall all around the city, and outside that is a deep ditch.



Raphael

SELLING HERBS TO CURE ALL ILLNESSES IN KANO'S MARKET PLACE

Kano was an important trading centre centuries ago, and it is still so to-day. Its people used to trade by caravan across the Sahara with the Moors of Tripoli, from whom they got their Mohammedan religion and their custom of wearing flowing robes. Now the town is the chief market of a large district and is connected by railway to Lagos.



NATIVES OF NORTHERN NIGERIA SHOW THAT BRICKS CAN BE MADE WITHOUT STRAW

Taylor

This photograph shows the first stage in making a Nigerian mud house. The red clay soil is molded by hand into rough balls which are put in the sun to get hard. They are the bricks. Then more clay is mixed with water and trampled upon—four men at the back are doing that—and even the plastering, is done by hand. These men are busy on a tapering wall that will surround a group of houses; for house walls are made fully as thick at the top as at the bottom. All the work,



THATCHING THE ROOF OF A ROUND MUD HOUSE IN NUPE, NIGERIA

The tall roof of this circular house projects over the walls and makes a veranda upheld by carved posts. The Nigerians are clever thatchers and make perfectly water-tight grass roofs like this. They finish off the top with a plummy tuft. The Nupes, who live in central Nigeria, are an intelligent tribe, but were once slave raiders.

Rejoining the boat at Sekondi we will proceed eastward, passing Cape Coast Castle, the original British settlement, and Accra, the present capital, which now has a wireless station, and halt at Lome, just beyond the boundary. This is the entrance to Togoland, which before the World War belonged to Germany. It is a long, narrow strip of country about the size of Ireland adjoining the Gold Coast. It is a fertile land, and in addition to palm oil and kernels—its chief exports—it grows cotton, corn, cocoa, rubber and sisal hemp.

On the declaration of war in 1914 the British and French marched into Togoland, and the Germans, after blowing up their important wireless station at Kamina, surrendered unconditionally. In the final settlement the administration of Togoland was entrusted by the Allies to France and Great Britain together, Great Britain taking the northern part. We shall not stop in Lome or the little town of Togo farther inland, but will go on eastward till we come to Nigeria, the

largest of all the British possessions in West Africa.

Nigeria is almost square-shaped, nearly four times as large as Great Britain, with a population two and a half times as large as that of London. Halfway up the western boundary it is entered by the River Niger, which flows along southeast until it is met by the Benue River coming from the eastern boundary. All Nigeria to the north of these two rivers is known as the Northern Provinces. The two rivers together form a stream two miles wide, which flows steadily south until about 140 miles from the coast, where it forms a delta, breaking into numbers of little rivers and lagoons.

At the extreme west is marshy and impenetrable Lagos. This, until Great Britain captured it in 1851, was a famous slave market, supplied by the province of Benin. To-day it is the capital and the greatest trade port of Nigeria. Apart from Lagos all Nigeria has been acquired by Great Britain during the last half century or so.

Dense Tropical Forests

We can travel up the river in a large steamer as far as Jebba, or we can go there from Lagos direct by rail, enter the Northern Provinces and continue north by rail as far as Zaria and Kano. Which-ever way we go we shall pass through dense tropical forests where grow mahogany, ebony, cedar, rubber, cork, palm and kola-nut trees. Then come others, gum, locust bean, wild date palms and shea-nut trees. Shea-nuts yield a buttery fat which is used by the natives for food, and which is also exported to Europe for the manufacture of soap, candles and pomades. Presently the forests diminish and little clearings are seen where yams, maize, plantains, guinea corn and cocoa are grown. The bread of the country is made from guinea corn. The Northern Provinces grow ground-nuts, shea-nuts, palms, rubber and gum trees and rear herds of sheep and cattle, keep dogs, goats and fowls, and, in the northernmost territory, use camels for transport, and Kano is an emporium for caravans from the Sahara and elsewhere. In this region the soil is poor, for the Sahara is drawing near. The natives of the north belong to the Hausa and Fulani tribes. The Fulani originally came from the eastern part of Africa. The Hausa, who once possessed all northern Nigeria from Lake Chad to Sokoto and beyond, are black, intelligent Negroes, Mohammedans by religion.

From Zaria we can, by means of a small mountain railway, climb the Bauchi plateau, a lofty tableland of granite, 150 miles long by 100 broad. The sides are sheer, and until the railway was built it was inaccessible except by three tiny and easily guarded passages.

A Modern Tower of Babel

The inhabitants are of many races, from jet black to light-colored people with almost European features. There are 164 different languages spoken on the plateau. The natives have mined iron, lead and tin for centuries. Although roads are being made in all directions,

there are places in Nigeria where no white man has ever traveled, and other districts, difficult of access, where slavery and cannibalism are still practiced. Near the Benue River there is a tribe, the Munshi, who are quite unconquered and are dreaded on account of their poisoned arrows. In the western part of the Southern Provinces we find the Yorubas, a brave, warlike Mohammedan people, but for the most part the Nigerian natives are black and pagan. Only about six per cent of the children get any kind of education.

Adjoining Nigeria and running from the coast to Lake Chad on the east is a strip of country known as Cameroon. This, like Togoland, belonged to Germany before the war. It was surrendered in 1916, and later it was handed over to France and Great Britain to administer. Some of the native tribes here are light colored, with almost European features and well shaped hands. They are a portion of the great Bantu family, a people of many races who speak practically the same tongue, found chiefly in East and South Africa. Near the coast Cameroon has plantations of rubber and cocoa laid out by the Germans, but apart from these the country, though fertile, is undeveloped. In Victoria, however, experiments are being made in the growing of vanilla and spices; there is trade in ivory, and ebony is abundant.

Arabian Stock in Somaliland

French and Belgian territories separate us from British East Africa. Suppose, therefore, we continue our journey by aeroplane. The countries adjoin each other with one exception, that of British Somaliland, a strip of land lying on the coast of the Gulf of Aden; and we will fly on over the Sudan and Abyssinia and visit this isolated country first. The natives here are not Negroes, but claim to be the descendants of Arabs. They are a tall, fine, active race, very dark, and in features they somewhat resemble the ancient Egyptians. They are a fierce, lawless people, many of them fanatical Mohammedans who have given Great Britain



© E. N. A.

GAMBIA'S KING, Archibong II, displays a dignity that well suits his regal state. His royal crown is of gold studded with precious stones and mounted on ermine and velvet. It has a fairly close resemblance to the Imperial Crown of Britain. In contrast to the richness of crown and collar and brocaded skirt are the carpet slippers that cover the royal feet.



Miss Percival

HOW FLOODS ARE BRIDGED AND GOODS ARE BROUGHT TO MARKET IN THE JUNGLES OF SOUTHERN NIGERIA

flooded and there are great stretches of swamps, enough roads cannot be made. Goods still have to be carried by the natives over bridges that no vehicle could cross. Ebony was the chief product of this district, but it has all been exhausted.

This photograph takes us to Calabar, in southeast Nigeria, and shows us a procession of native porters carrying bags of rice to the market of Aro Chuka, near the Cross River. Some motor roads have been built near here, but as, in the rainy season, all the many rivers and creeks get

much trouble since the protectorate was established in 1884. The trade of the country is in the hands of Arab and Indian merchants on the coast. The natives breed herds of camels, goats and sheep or grow crops of millet, coffee and indigo and collect the fragrant gums, myrrh and frankincense (the chief ingredient of incense), for which this land has always been famous. The British garrison stationed here consists of a camel corps four hundred strong.

Now suppose we fly back to Khartum, the capital of the Anglo-Egyptian Sudan, a vast but sparsely populated territory. We recall the heroic death of General Gordon while defending the town against the Mahdi, and Kitchener's subsequent victory over the Mahdi and his army at

Omdurman. After this, Egypt entrusted Great Britain with the task of governing the Anglo-Egyptian Sudan, a country three times as large as Egypt itself.

For over fourteen hundred miles of its course the Nile flows through the Sudan and largely influences its cultivation. The northern provinces grow crops of millet, the chief food of the natives, also ground-nuts, dates and cotton. In the three provinces of Halfa, Dongola and Berber there are well over a million date-palms. Moreover, the Sudan is rich in cattle, sheep and goats. Camels are in use throughout the greater part of the country.

Crossing to the White Nile, we journey south by steamer and pass through a fertile belt from which is obtained, among other things, the world's supply of gum



Percival

THE UMBRELLA SHOWS THAT A RICH MAN LIES BURIED HERE

The Ibibios are a very wild tribe of bushmen who live on the Calabar coast in the south-east of Nigeria. They hide their houses deep in the jungle, but build, in the open, conspicuous tombs of painted wood thatched with palm leaves. Here they put all kinds of bottles and pots and jars for the use of the dead man's spirit.



© E. N. A.

IN KENYA COLONY, it is the custom for a man to buy his wife from her father. This Kikuyu man had to pay eight cows, ten goats and twenty jars of native beer for his bride.



NIGERIAN CHILDREN, like these little girls, wear few clothes, even when dressed in their best. Their heads were bound when they were babies and grew into this unnatural shape.

arabic. Presently the Nile is joined by the Bahr-el-Ghazal from the west, and here we enter a different kind of country. Low-lying and watered by many tributary rivers, its soil is the richest in the whole of the Sudan, but the natives are indolent, and content themselves with collecting timber from the tropical forests.

It is thought that the southern Sudan is the home of the true Negro race, and certainly the majority of the natives here to-day are pure black Negroes of the most primitive type. Some are even cannibals. They are a great contrast to the people dwelling in northern Sudan, who are mainly Arabs, Nubians or mixed tribes.

At Rejaf the Nile becomes unnavi-

gable. We must therefore march on foot to Numile, on the Uganda border. The distance is ninety-three miles, and we can walk only in the cool of the early morning. We cannot get even a donkey to carry our luggage, for the disease-bearing tsetse fly swarms in all parts of this district and kills off the transport animals. Uganda is in the region of the Great Lakes. A steamer will take us by river to Albert Nyanza. Thence by motor, steamer and railway we reach Victoria Nyanza, the second largest lake in the world, discovered by Captain Speke in 1858 to be the source of the Nile.

Uganda is as large as the British Isles. Of the natives, the most civilized are the



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BISHARIN CARAVAN MEN REST AT THEIR JOURNEY'S END

The Bisharins live in the Sudan just north of the Hadendoa, and though they are chiefly nomads, or wanderers, they have a permanent centre at Assuan. They keep flocks of sheep and herds of camels, and collect senna leaves. These leaves, together with ostrich feathers and ivory and gum arabic they bring to market by camel caravan.



Sudan Govt. Railways

A "FUZZY-WUZZY" OF THE ANGLO-EGYPTIAN SUDAN

This fine, fierce-looking man is a Hadendoo, who lives in the hilly Nubian Desert south of Suakin. He looks warlike enough with his spear and dagger and shield, and it is no wonder that men of his tribe make exceptional soldiers. His great mop of hair has earned for his tribe, as it has for the Baggara people, the name of "Fuzzy-Wuzzy."



© E. N. A.

SWAHILI WOMEN of Zanzibar take great pains with their appearance. They paint designs on their cheeks and foreheads and dress their hair elaborately. Their long toothed comb is like that used by the Fiji Islanders. Because these girls are a mixture of two races, Arab and negro, one sister may be dark with woolly hair, another lighter with straight hair.



LINCOLN

IN ZANZIBAR and on the neighboring mainland live the Swahilis or "coast people." They are the descendants of Arabs who generations ago came here as traders and married negro inhabitants. They speak archaic Bantu mixed with Arabic and use Persian, Hindu, Portuguese, German and English words besides. Their color varies and their features are often Semitic.



SOMALI WAR DANCE THAT LOOKS LIKE A DEADLY COMBAT

The Somali people are largely nomad herdsmen who keep great herds of cattle and goats and sheep, though some are fishermen and some, farmers. They are excitable but courageous, and make good soldiers. These two photographs show their war dance, called Boroma-Boromsi, performed by two fighters and a group of dancing spearmen.



THE FIGHT IS FINISHED WHEN THE SHIELDSMAN FALLS

One of the combatants is armed with a cutlass, the other protects himself with a shield, and a fierce struggle takes place. At last the shieldsman falls to the ground and begs for mercy while the chorus chants "Boromsi Boromsa." The swordsmen now asks whether he shall kill his opponent, who, as it is only a dance, is always allowed to go free.



© E. N. A.

THEIR GIGANTIC POLES ARE SIGNS THAT CIVILIZATION IS COMING

One of the first things the white man does, when he has explored a new country and wishes to open it up to trade, is to link it with the nearest large port by telegraph. This photograph was taken in Tanganyika Territory, and shows native porters carrying the tall, slender posts of cast-iron that are to support the telegraph wires.



HUNTER

A MASAI WOMAN should have the lobes of her ears stretched until they will meet over her shaved head. Her stone ear plugs, ear-rings and other ornaments, including many pounds of iron wire around her neck and arms, she may not remove during her husband's lifetime.



MCCANN

KING PREMPEH became the ruler of Ashanti in 1886 but later so resisted the establishment of the British Resident at Kumasi that he was deposed in 1896 and sent to Seychelles as a political prisoner. In 1924, however, he was allowed to return to the Gold Coast as a private citizen.



© E. N. A.

THIS WANDERING DERVISH of the Sudan carries a polished gourd as a begging-bowl. Dervish is Persian for "seeking doors" or begging, and in Islam generally implies membership in a religious fraternity. Of these, there are perhaps thirty, distinguished by their garb. Each has its ritual, which may include whirlings and the self-torture of the howlers.



© Carl Akeley

WARRIOR-HUNTERS OF THE MASAI TRIBE DANCE TO CELEBRATE THEIR PROWESS AS HUNTERS OF THE LION

The Masai of Kenya are an uncommonly warlike race, and until quite recently the young men would go out in parties armed with spears and swords and kill any man they met, just for the pleasure of doing so. They would never, however, kill a woman or a child. They live in a country infested by wild beasts, but they hunt only the lion. They say that a lion will never charge at a man who stands in front of him without flinching, and indeed they always seem successful in killing their prey, which they attack from all sides with their spears.

IN TANGANYIKA TERRITORY THE HUNTSMAN'S DANGER IS NOT OVER WHEN HE HAS KILLED HIS QUARRY
 Lake Tanganyika is in most parts more than a thousand feet deep and narrow, unsteady dug-out canoes. These men have been hunting along its game-haunted banks and have caught a leopard.



NATIVES VOYAGE PERILOUSLY IN CANOES ON LAKE
 The dug-outs they use in northern Rhodesia are smaller than those of Lake Tanganyika, but then, as the reediness of its water shows, Lake

BANGWEULU'S SHALLOW, SWAMPY-MARGINED WATERS
 Bangweulu is very shallow. These boats have been fashioned by hollowing a big log with fire and afterward an adze.

© E. N. A.



© E. N. A.

HIPPOPOTAMI comes from the Greek meaning "river horses." They may have been the behemoths of Scripture, although they are no longer found in the Jordan Valley. There is a pygmy variety about six feet in length, but these denizens of the Zambezi rivers are nearly as large

as elephants. They spend most of their time under water with only their eyes and nostrils above the surface, or if they dive while foraging for plants, they come to the top every few minutes. Their teeth provide ivory, their hide makes whips and their flesh is eaten by the natives.

Batangas, who have been converted to Christianity. They are a tall, well-built race, and make clever iron-workers and carpenters. Many of them are musical.

Bananas form the staple food; cotton-growing is the chief industry, but coffee, rubber, rice, chillies and sugar are also cultivated. Uganda has no coast, so most of her commerce with the outer world has to go by the Kenya and Uganda Railway.

Kenya a Land of Contrasts

Kenya is considerably more than twice the size of Great Britain, and its population is less than three million. It is a varied country of barren stretches, hot, fertile plains and more temperate highlands. The seat of government, originally at Mombasa, has been transferred to Nairobi. This town, through which the train presently passes, is a flourishing place with electric light, telephones and motor cars. Here and in the surrounding highland country are found the only places suitable for European settlers.

The Masai of the southwest are an interesting tribe. When a Masai boy is seventeen years old he is usually six feet in height. For the next three years he is fed on milk, blood and half-raw beef-steaks and is trained rigorously. At the age of twenty he is a perfectly developed warrior. All Masai when grown are a dull chocolate color, but as new-born babies they are yellow.

Mohammedan Swahili

Mombasa has the finest harbor on the East African coast. Here we will take ship to the south for the island of Zanzibar, which, with the smaller island of Pemba and a strip along the mainland opposite, has been the Protectorate of Zanzibar since 1890, and to obtain which Britain, among other concessions, gave Heligoland, an island in the North Sea, to Germany. The protectorate is ruled by a native sultan, subject to the British Government. His people, though comprising many races, are known as Swahili and speak one tongue. The Swahili of the islands depend for a living mainly on growing cloves for the spice markets of

the world, though they are now starting to cultivate coconut palms. Once troublesome, these people, who are mainly Mohammedans, are now loyal subjects, and the present sultan attended the coronation of King George.

We now cross to the mainland strip at Dar-es-Salaam, the seat of government and main port of Tanganyika Territory, which includes the southern half of Lake Victoria Nyanza, where the tsetse-fly causes sleeping-sickness. The plantations are owned chiefly by Arabs. Ivory is a considerable source of wealth. Gold, mica and tin are found. The railway runs from the coast to Victoria Nyanza, and camel caravan routes are used.

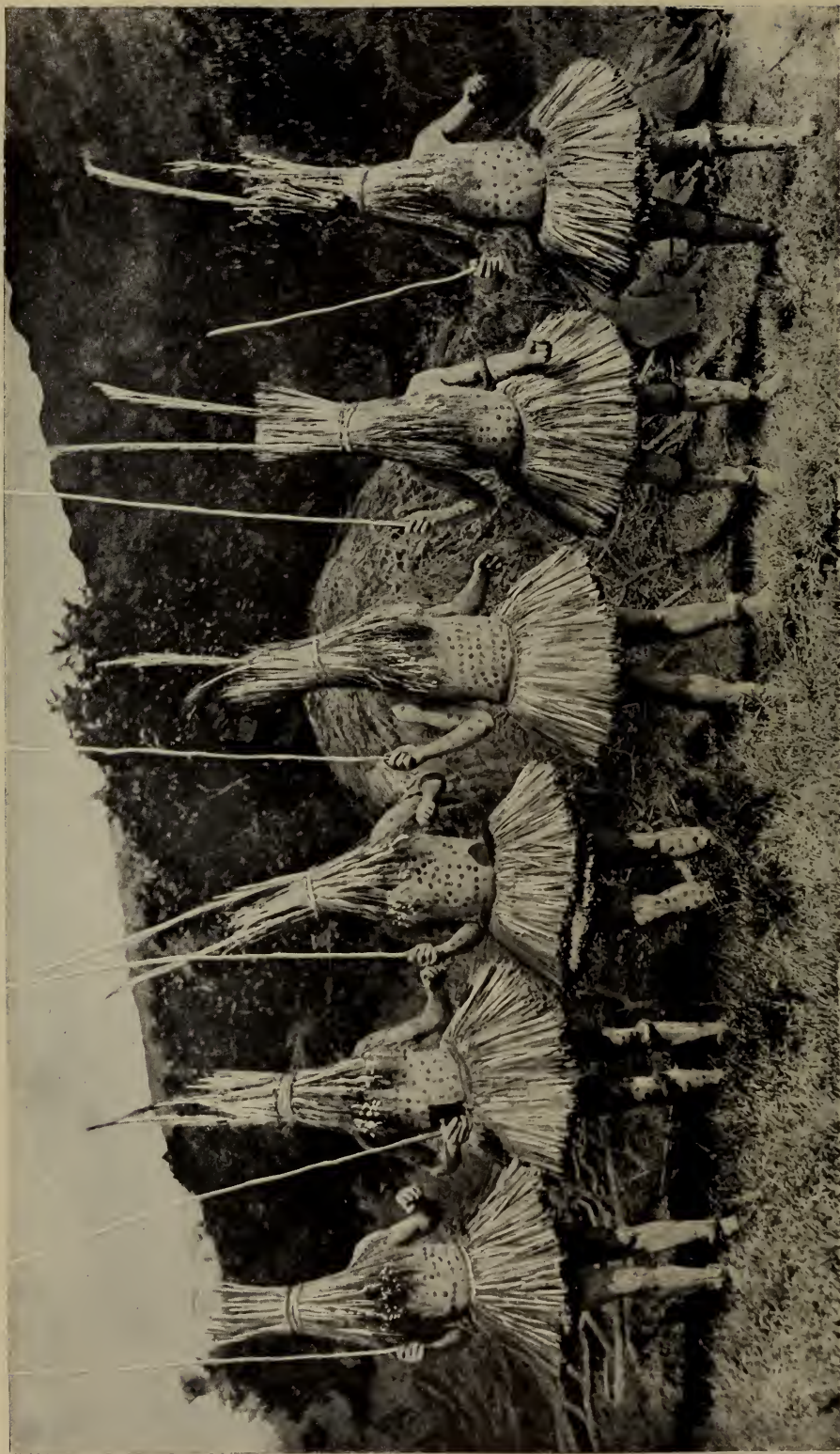
If we go south we strike Lake Nyasa and the Nyasaland protectorate around its western and southern shores. This tiny country, with North Rhodesia and South Tanganyika, brings to memory the name of David Livingstone, the discoverer of Lake Nyasa and Victoria Falls.

In Honor of David Livingstone

Blantyre, the capital of Nyasaland, is named after Livingstone's birthplace in Scotland. The natives, many of whom are Christians, are progressive people and value education. There are more than 165,000 students in the Mission schools. Tobacco-growing is the main industry of the country, but cotton, tea, rubber, coffee and corn are also cultivated.

Northern Rhodesia, to the west of Nyasaland, was not definitely taken over by the Crown till April, 1924. The unfinished Cape to Cairo Railway passes through it from south to north, and most of the population is settled along the railway line. In the high northwest, in spite of the trouble with the tsetse-fly, cattle are reared extensively, and exported, sometimes as many as twelve hundred head per month, to feed the natives working in the mines of the Belgian Congo.

The country has great mineral wealth. Here at Livingstone, in the extreme south, we will take our leave of British East Africa, with the thunder of the neighboring Victoria Falls in our ears.



Craft

SIX PAINTED KAFFIR BOYS WHO DANCE ALL DAY TO CELEBRATE THEIR ARRIVAL AT MANHOOD

All over Africa, and in many other parts of the world as well, a native boy at the approach of manhood must go through all kinds of ceremonies. For instance, these Kaffir lads, painted white with lime or chalk with their black skin showing through in spots and clad only in skirts

of reeds, with reeds covering head and face, must dance from dawn until sunset—dance until they fall down exhausted. They may count themselves lucky at that, for some African youths, on coming of age, must suffer a severe whipping without flinching.



Allridge

THE DUSKY QUEEN MESSI OF MASSA RIDES ABROAD IN HER SUN-SHADED HAMMOCK

Queen Messi rules capably over the people of Massa in Sherbro, an island district in western Sierra Leone. Crowned by a silk top-hat, emblem of authority, she is riding in state to a political meeting, preceded and followed by her dancing girls. Sherbro is one of the most

fertile parts of Sierra Leone, and the people who inhabit it, the Mendi, are strong muscularly and very able as carriers and hammock-bearers. Their ways are governed by two secret societies, one for the men and another for the women, called, respectively, the Porro and the Bundu.

BRITISH AFRICA FROM WEST TO EAST

BRITISH AFRICA FROM WEST TO EAST: FACTS AND FIGURES

GAMBIA

Independent Crown Colony and Protectorate administered under a Governor with an Executive and nominated Legislative Council. Area of colony, 4 square miles; population, 10,000. Area of Protectorate, 4,130; population in 1921, about 200,000. Chief export is ground-nuts. Capital: Bathurst.

SIERRA LEONE

Colony and Protectorate have a Governor, a nominated Executive Council, and a Legislative Council. Area of Colony about 4,000 square miles; population (1921), 85,163. Area of Protectorate, 27,000 square miles; population in 1921, 1,456,148. Chief exports: ginger, kola nuts, palm kernels and oil. Railway mileage in 1927, 339; 877 miles of combined telegraph and telephone wires. Government and mission schools. Population of Freetown, 44,142.

GOLD COAST (*with Ashanti and Northern Territories*)

Administered by Governor with an Executive Council; Legislative Council. Area of the Colony, Ashanti and Protectorate about 80,000 square miles; population in 1921, 2,078,043. Chief exports: cocoa, gold, manganese, diamonds and kola nuts. Railway mileage, 394; mileage of telegraph trunks, 4,350; telephone trunks, 4,635. Government and mission schools. Population of Accra, 38,000.

NIGERIA (*Colony and Protectorate*)

Administered by Governor and Executive Council who are also members of the Legislative Council; 2 Lieutenant Governors for the Protectorate. Total area, about 335,700 square miles; population, 18,765,600. Chief exports: palm kernels and oils, cotton lint, cocoa, tin ore and ground-nuts. Chief port, Lagos.

SOMALILAND PROTECTORATE

Administered by a Governor and nominated Council. Area, about 68,000 square miles; population about 344,700. Chief exports: skins, hides, gums and resins. 5 wireless telegraph stations. Mohammedanism prevails. Chief towns: Berbera and Hargeisa.

UGANDA PROTECTORATE

Administered by Governor assisted by Executive Council; Legislative Council. Total area, 94,204 square miles (15,017 water); 1927 estimated population, 3,157,008. Chief exports:

cotton, coffee, rubber, hides and skin. Steamship service on 3 lakes; government motor service; length of telephone and telegraph line, 1,597 miles. British headquarters: Entebbe.

ANGLO-EGYPTIAN SUDAN

Divided into 15 provinces under Governors, with Governor-General and Council in charge. Total area, about 1,008,100 square miles; population estimated in 1928 as 6,469,041. World's chief source of gum arabic and ivory. Chief imports: cotton fabrics, finished metal tools, other machinery, sugar, tobacco, millet and coffee; exports: gum arabic, ivory, cotton, timber, sesame and salt. Railway mileage, about 1,802. Steamship service on Nile. 17 wireless stations and 12,130 miles of telephone and telegraph wire. Government in charge of education. Chief towns: Khartum (capital), population, 31,965; and Omdurman, 79,238.

KENYA COLONY AND PROTECTORATE

Administered by Governor and Executive Council; Legislative Council; divided into 7 provinces and 5 provincial districts. Total area, about 225,100 square miles; population estimate in 1926, 2,736,517. Chief exports: cotton, coffee, fibres, corn, hides and skins, ivory and timber. Kenya and Uganda Railway has mileage of 589 (main line), 520 (branch). British headquarters: Nairobi, population, 32,864; Mombasa, 39,824.

NYASALAND PROTECTORATE

Administered by Governor assisted by nominated Executive Council; Legislative Council; divided into 4 provinces. Total land area, 37,890 square miles; population in 1927, 1,306,934. Chief exports: tobacco, cotton and tea. Chief settlement, Blantyre.

NORTHERN RHODESIA

Administered by a Governor and an Executive Council; Legislative Council. Total area, 287,950 square miles; population, 1927 estimate, 7,275 Europeans and 1,237,486 natives. Seat of government, Livingstone.

ISLANDS

The Zanzibar Protectorate is formed by the islands of Zanzibar (area, 640 square miles) and Pemba (area, 380 square miles) and adjacent small islands in the Indian Ocean off the east coast of Africa.

Seychelles and its Dependencies consist of 101 islands, 970 miles east of Zanzibar.

MANDATED TERRITORY: FACTS AND FIGURES

TOGOLAND

Former German territory now divided between France and Great Britain. British area, about 12,600 square miles; population, 188,265. Administered by the Governor of Gold Coast.

BRITISH CAMEROONS

Former German territory now divided between France and Great Britain. British area,

34,236 square miles; population about 700,050. Administered by the Governor of Nigeria.

TANGANYIKA TERRITORY (*Late German East Africa*)

Administered by a Governor and Executive Council; Legislative Council. Total area, 374,000 square miles (20,000 water); population estimate in 1927, 4,324,300.

IN THE HEART OF AFRICA

Among the Cannibals and Pigmies of the Congo

The Congo, Africa's second longest river, flows through the dark heart of Africa and, with its mighty tributaries, taps the vast territories of the French and Belgian Congo and Angola, Portugal's largest colony. Forests, where all is dim and damp, cover huge portions of the Congo lands, and some of the most savage and primitive people in the world are to be found in these mysterious regions. In some places we shall be following the trails blazed by two famous explorers, Livingstone and Stanley, who tore the veil of mystery that had hidden the face of the Congo regions from the eyes of civilized man.

IN the year 1482 or 1483 a little fleet of galleons led by Diogo Cao went cruising along the west coast of Africa. The huge sails were emblazoned with large red crosses, and from the mastheads fluttered the banner of Portugal. For months the fleet had sailed slowly along that low coast, with its lines of palm trees and with the white surf breaking ceaselessly upon the yellow sand. The swampy mangrove thickets at the mouths of the Niger were passed; the vast Cameroon's volcano was sighted and the Equator crossed. Then the mouth of a wide river opened out before the adventurers.

From the natives, the adventurers learned that the river was called the "Kongo," and that the country just to the south of it was ruled by a great chief called M'wani Kongo ("Lord of the Kongo people"). The Portuguese then began to trade with him, and eventually established a Jesuit Mission among his people.

The Portuguese did not go far up the river because of the rapids which barred their progress, and also because of the savage tribes which attacked the expeditions. For four hundred years little was known of the river. In 1876, however, Henry M. Stanley, who had gained fame by his expedition in search of Dr.



American Museum of Natural History

AN ELEPHANT'S TUSK BECOMING A VASE

This primitive artist first hews off a length of elephant tusk, then carves it with the crude adze shown above, working freehand but with generations of skill back of him, and finally polishes the vase with silica crystals.

David Livingstone, the Scotch missionary-explorer, was again in Central Africa and came upon a river, called by the natives Lualaba (Great River), which he thought might be the Upper Nile and determined to explore it.

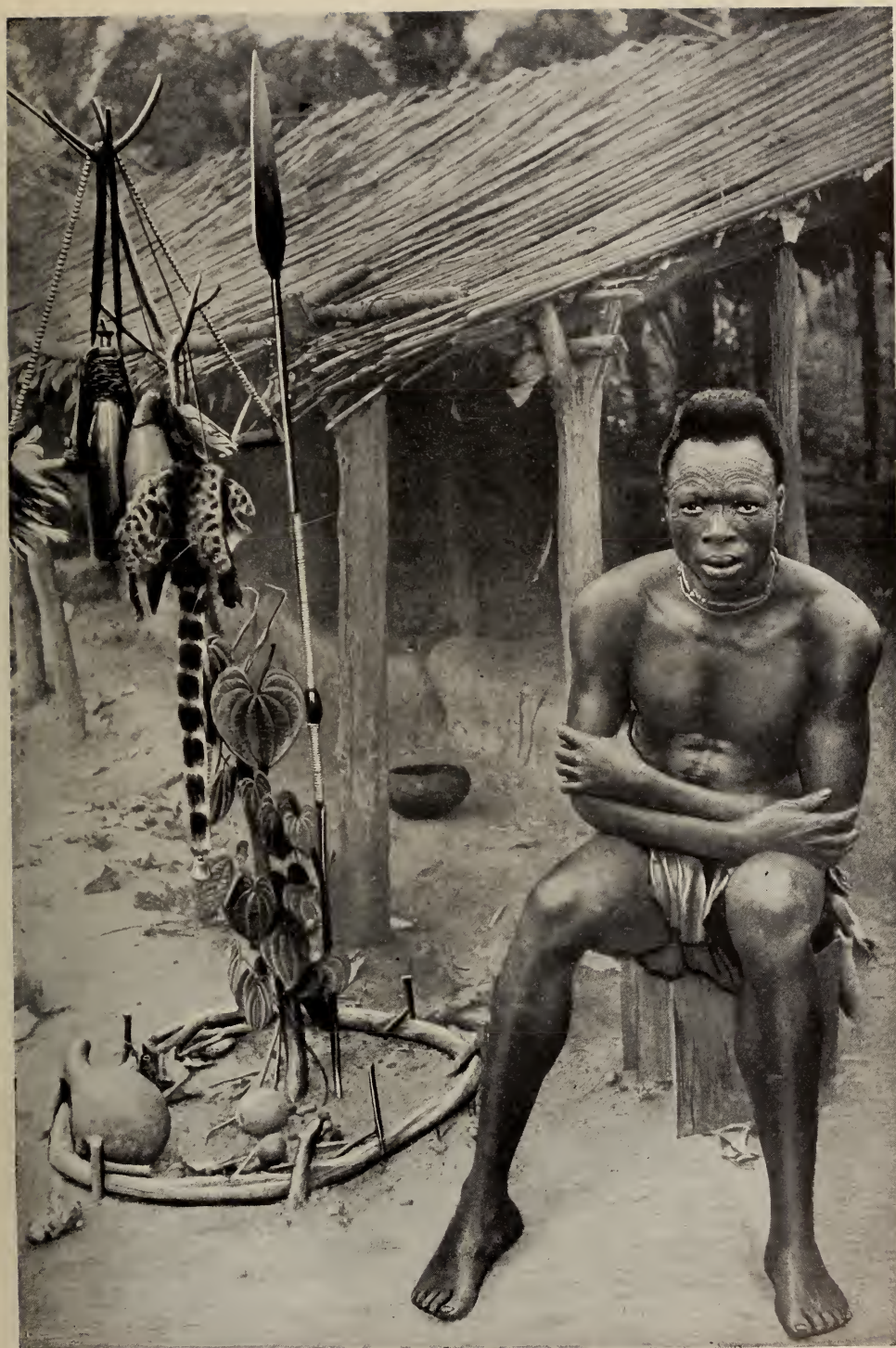
He came in from Zanzibar on the east coast in time to start in October from Nyangwe, a point on the Lualaba just west of the upper part of Lake Tangan-



ARMOR OF MAGIC WAR PAINT SHIELDS THESE WARRIORS

Harris

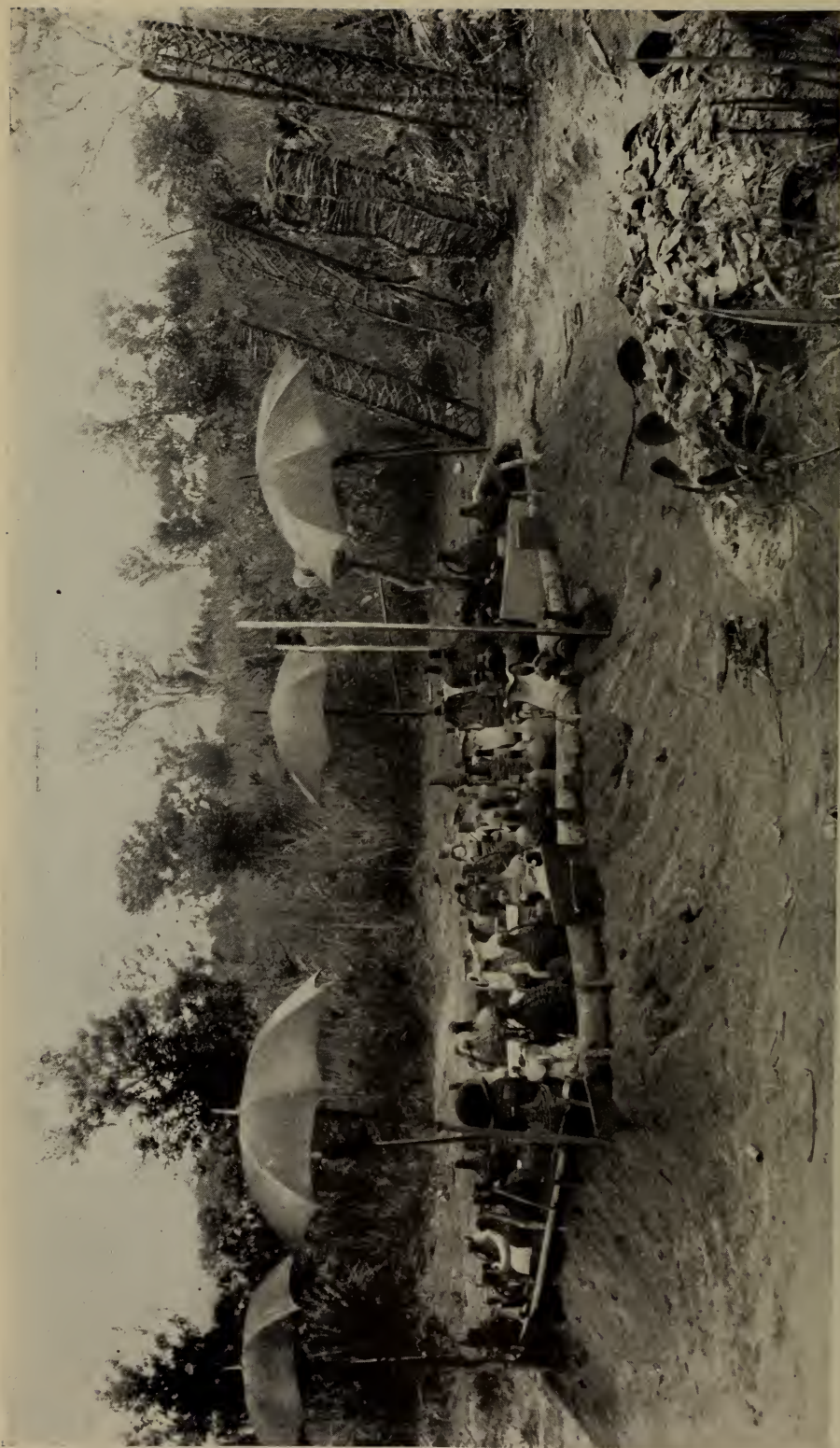
When these warriors of the Belgian Congo prepare for a tribal fight they do not put their trust solely in their shields and weapons, but daub themselves with magic paint that has been charmed by their magicians. Unfortunately, if the enemy use stronger magic, the paint is no protection. Note that the blade of the spear is notched like that of a saw,



Harris

WITCH DOCTOR OF A VILLAGE IN THE BELGIAN CONGO

In many villages the witch doctor is the real chief and rules his subjects by fear. He is usually a good deal more intelligent than the people whom he deceives with his conjuring tricks, hypnotism and feigned trances. He sells advice and spells to these simple and ignorant folk and rids himself of his enemies by means of subtle poisons.



Bea.

FOUR UMBRELLAS GUARD THE STRANGELY ORNAMENTED GRAVE OF A CHIEF IN ANGOLA

Many strange sights are to be seen in Portugal's West African colony, but surely none stranger than this. A chief is buried with elaborate ceremonies after his body has been enveloped in as many yards of cloth as can be afforded. Should the man have been wealthy, as much as two

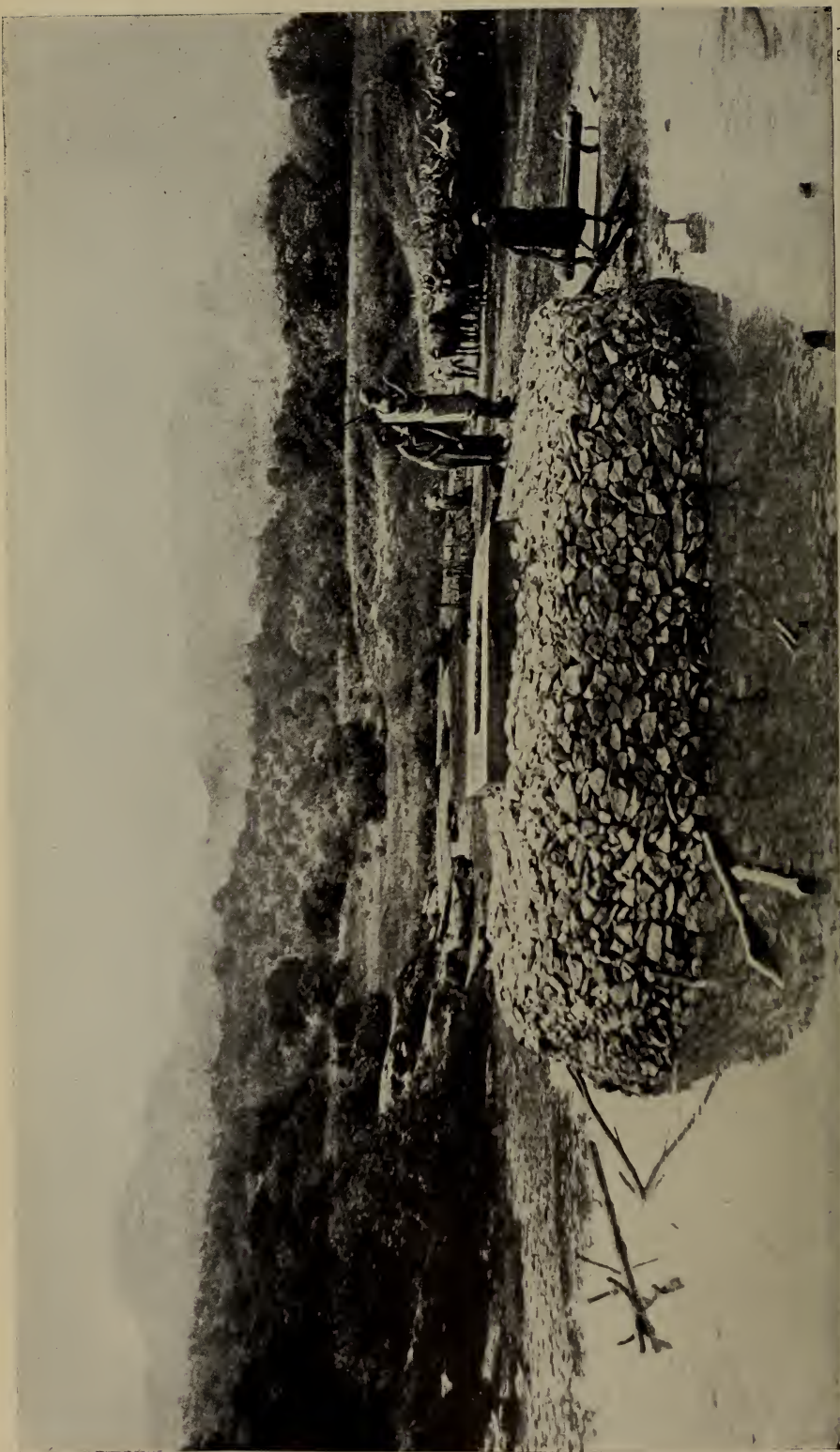
hundred yards may be used. The natives believe that the dead will still require their belongings, so the grave is covered with all kinds of odds and ends, which must be "killed" before they are placed there. Formerly, slaves also were killed when their owners died.



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THE SUPREME CHIEF OF RUANDA, EASTERN CONGO, IN THE ACT OF ADMINISTERING JUSTICE

Though Ruanda is in Belgian territory, the king still hears cases at his court. Here he is seated before the entrance to the royal enclosure, which is a maze of palisaded houses and gardens. The king belongs to the Watusi tribe, the ruling class in Ruanda. These Watusi are exceptionally tall. Many of them are fully seven feet in height. They came from the north and are the original conquerors of the country, who retained the former inhabitants as slave tribes. Ruanda is the last and greatest of the kingdoms ruled by Negro monarchs.



Taylor

CAREFULLY CONSTRUCTED WELL-HEAD AT BANYO IN THE GRASSLANDS OF THE ADAMAWA HIGHLANDS

The Adamawa district of Africa contains great tracts of upland savanna which afford excellent pasturage, and the herds of cattle kept by the Fulas and other tribesmen were at one time raised for export. The cement and rough stonework around this much frequented well was

constructed by the Germans, for the Adamawa highlands were once part of German Cameroon. In 1919, however, it was divided between France and Great Britain. Banyo is now on the borderline between British and French Cameroon. Native cattle like those above were once exported.



American Museum of Natural History

NEAT DWELLINGS OF A TRIBE OF CANNIBALS WHO LIVE ON THE EDGE OF THE CONGO BASIN

These huts near Rungu are better structures than the dwellings of most African Negroes. The walls are covered with bark and the water-tight roofs of palm leaves are roped fast with fibre. Many huts are divided by partitions into two rooms, one of which serves as a kitchen and the

other as a sleeping-room. The native huts vary considerably from one part of the Belgian Congo to another, according to the material available and to the climate. In the foreground we see a resonant wooden gong, used for signaling to other villages or summoning people to a feast.

yika. It was a region of equatorial heat and heavy winter rains, where the waterways led through tangled jungle forest made terrifying at night by the howls of tigers and almost equally dangerous by day by reason of the myriad fever-breeding insects and the savage warriors who met them with flights of arrows. The heat was prostrating and food ran low, and the three white men who started with him died of the almost incredible hardships that met them all along the way. Stanley himself was prematurely aged by these experiences, but he was young and somehow managed to pull through.

After a few portages near the start where they had to pass some falls and rapids, the journey could be made entirely by canoe. At times the river widened into muddy swamp lands or lakes bordered by papyrus and other reeds and grasses; but for the most part it flowed through a tunnel of trees. For weeks of travel the Luabala led them northward, then took a surprising sweep to the westward and south-westward as it became the Congo. The following spring they came to what is now Stanley Pool or Leopoldville, and here the river narrowed from three miles to perhaps three-quarters of a mile, to go leaping and thundering for 170 miles over rock-walled cataracts. Below that long detour, during which they had to hack their way through all but impenetrable underbrush, the stream was again navigable; and soon they reached Boma, a port some seventy miles inland. The Congo empties into an Atlantic stained red-brown with river silt, as the stream



Mrs. J. H. HARRIS

THE MOST FAMOUS BEARD IN CONGOLAND

This man is chief of a troublesome folk, but they are proud of him, for plaited and coiled under his chin is his beard, rather thin, but many feet long. Only on state occasions does he uncoil it to the admiring public gaze.

widens over seven miles of delta fringed with mangrove swamp. Stanley had crossed the African continent from east to west and had traced nearly two thousand miles of navigable waterway. His dramatic published accounts of his adventures were translated into several languages.

A year after his discovery of what has proven to be one of the world's largest rivers, which drains a basin correspond-

ingly vast, King Leopold II of Belgium formed an association for the opening of the Congo basin to commerce. To secure peace and further trade relations with the natives, he made hundreds of treaties with small independent African sovereigns. As a consequence, in 1885 the Congo

Free State was founded with King Leopold as ruler. The state was ceded to Belgium, however, in 1908, and in 1927 its territory was increased by an exchange with Portugal which gave the latter country area for a port in the estuary of the Congo near Matadi.



Beale

RIVER OF ANGOLA SPANNED BY A FLIMSY BRIDGE OF CREEPERS

When the natives of Angola wish to build a bridge, they go into the forest and cut down some of the creepers that are to be found on all sides. From these they make the bridge, which is suspended from tree trunks on either bank. It is not easy for even a native to pass over one of these bridges, as the footway is narrow and uneven.

The main products of the Belgian Congo proved to be the ivory of elephant tusks and the products of the palm and rubber trees, together with resin, copal and certain vegetable fibres. The Belgians are making experiments in growing cotton.

What of the people of the Congo? Let us journey up the river for perhaps a thousand miles. Here and there the native villages peep from amid the close green foliage. Our little steamer blows her whistle, and in a moment we see dusky figures gathering on the beach. Several dug-out canoes put out to meet us. The former warriors have become peaceable fisher-folk.

Our steamer slows down, and drops its anchor. As we go ashore, the people crowd around us, moved by curiosity. The day has long passed when they feared the white man, but a chance visit never fails to create excitement. They wear little clothing and their chocolate-brown bodies are tattooed. They have their front teeth filed to points, like the teeth of a saw, and their tribal marks are cut on their faces. These marks are cut deeply in the flesh of the cheeks and forehead with a sharp iron instrument. It is a painful process and not infrequently causes blood-poisoning or lockjaw. Large and small dug-outs are drawn up on the beach, and fishing-nets, attached to wooden frames, lie drying in the sun. Fish-traps, too, made of split bamboo or of the cane called rattan, are in evidence. From one dug-out the day's catch of fish is just being landed and carried up to the village market. Now the smell of the salt tide mingles with a welcome taint of wood smoke, for beyond the beach is the village with its

two long rows of huts built facing one another. The lower end opens on the shore, but the upper end is closed to enable the villagers to defend themselves in case they are attacked by neighboring tribes; for behind the village is the primeval forest that extends for hundreds of miles.

The oblong huts are made of bamboo and thatch. It is interesting to watch the people building a hut. First a framework is erected, that is, long bamboo poles are driven into the ground and lashed to-



Rev. E. Holmes

PLASTERING WITHOUT TROWELS

Portuguese Congoans are of the Bantu-negroid family. Like the natives farther north in Nigeria, these Mbamba people use few tools. They do even their plastering by hand alone, patting the clay on by the primitive method shown above.



Beale

YOUTHS OF ANGOLA WEARING MASKS AND QUAIN COSTUMES

In most African tribes the initiation of young men who have "come of age" into the full rights of manhood is accompanied by much elaborate ceremony. In Angola, or Portuguese West Africa, the youths who take part in the rites of initiation wear white masks that are skillfully carven, however hideous, and ruffs and skirts of frayed leaves.

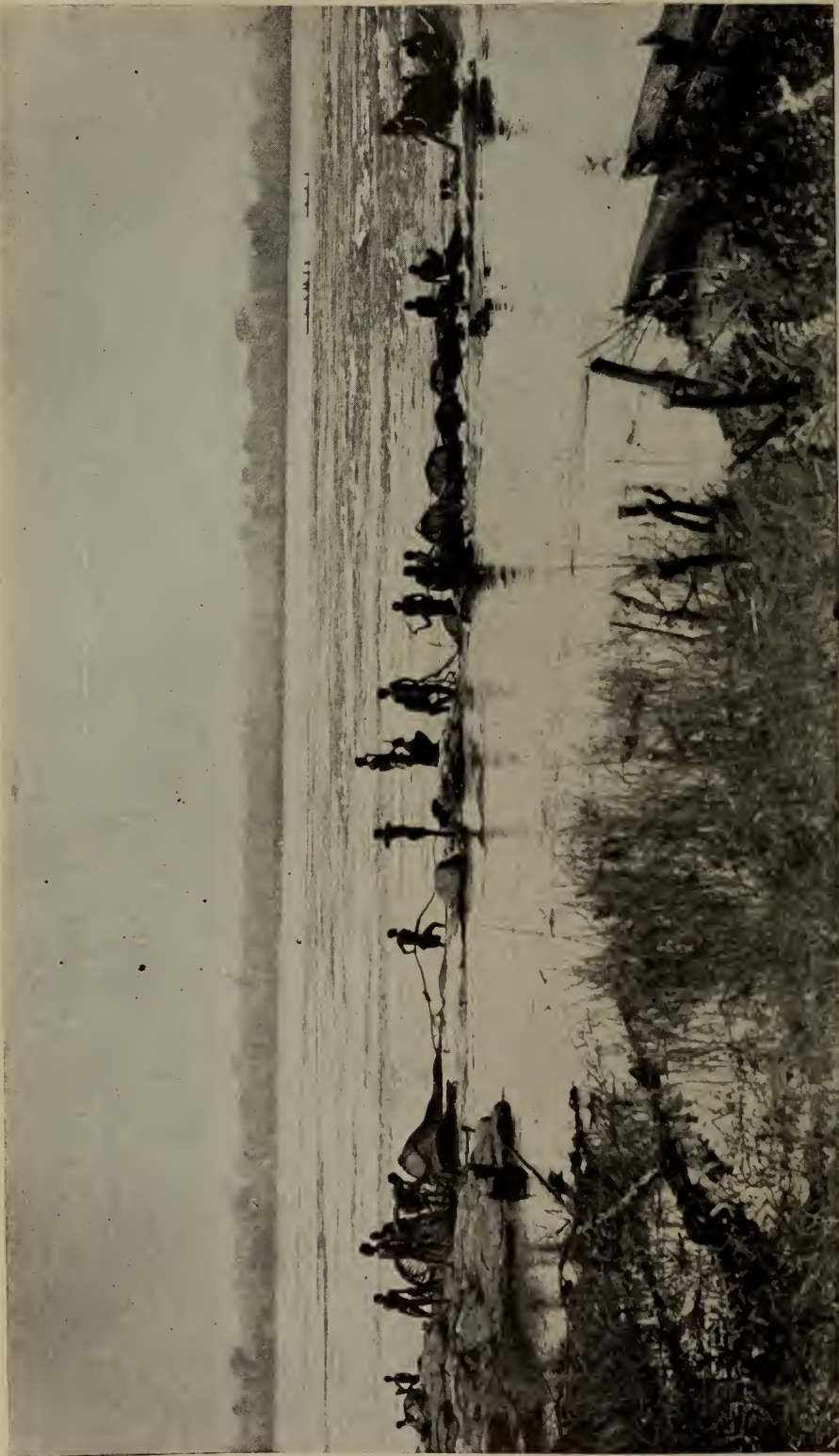
gether with cross-pieces and fibre. Then the big thatched roof of dry palm leaves is added, and last, the framework walls are covered with coconut matting.

Near the houses a space has been cleared in the forest to make gardens in which people grow yams, cassava and other vegetables; and there is likely to be a fragrant plantation of banana trees, their bright green leaves contrasting with those of the mango trees and the palms. The women cultivate the gardens and take the produce to the village, using big funnel-shaped baskets of split bamboo which they carry on their backs. Their task is not a little dangerous, for as a woman stoops to her work it is no uncommon thing for a leopard from the forest to spring murderously upon her.

One strange custom is that the boys, while still quite young, leave home and join in building a hut and keeping house for themselves. They provide food by

catching fish, trapping birds, squirrels and monkeys. They even stretch strings from the trees to catch bats. One of their chief delights is ratting, and many a nice plump field mouse finds its way into their cooking pot. Large hairy caterpillars, ants and beetles are also enjoyed.

There are two people in the village we must certainly visit—the chief and the witch doctor. We exchange greetings, then the chief leads us to his dwelling or the public "palaver house," where he holds a reception in our honor. Two or three European camp chairs may be brought out of the dark recesses of some hut and placed for us, while the chief takes his seat on a stool or in a hammock. We again exchange pleasantries, tell the chief why we have come to his village and make him a present—possibly a hatchet, a piece of cloth or even an alarm clock. In return, he gives us bananas, eggs, yams, coconuts, a couple of chickens or perhaps a goat.



Torday

NATIVES FISHING WITH BASKETS IN THE RAPIDS OF THE UBANGI RIVER AT BANZIVILLE

The Ubangi River is a tributary of the mighty Congo. Much of it is navigable and canoes and river-steamers ply to and fro on its placid surface, carrying the vegetable and mineral wealth of forests, plantations and mines to the towns from which it will be exported. At Banziville,

in the Belgian Congo, the pounding rapids make the river impassable for shipping. However, the natives, more interested in food than sportsmanship, fix several wide-mouthed, tapering baskets across the rapids, and so trap the fish that attempt to swim downstream.

The witch doctor is the priest of the village, and the people fear him because they believe he has power to command evil spirits; but he sells them charms to protect them from wild beasts, sickness, evil men and even those selfsame evil spirits. The people also think that he can bring dreadful diseases upon the village or cause a man to die. He is usually a cunning rogue, able to mix powerful poisons, and is certainly a man to be greatly feared where his enmity is incurred.

The Congo basin is inhabited by many tribes speaking different languages. Some villages are not at all like the one we have described.

To-day a belt of valuable mines two hundred miles long extends through the highlands. Lubambashi in Katanga gives Belgium the world's most famous copper district, and the natives who are partly civilized are kept busy at the mines and smelting works. In the south and east highlands there are also gold, radium, diamonds, platinum and coal. Though the navigable waterways are still the important highways, short lengths of railroad have been made to connect them and there is much talk of automobile roads and the maintenance of an air mail service.

For centuries there were rumors that a race of small black people existed in the heart of Africa, and many travelers and historians of past centuries had mentioned these dwarfs. In 1863-65 P. B. Du Chaillu came upon them. In 1887 Stanley, while passing through a vast forest between the Congo and Lake Albert, found numbers of these little people. Some of them were only three feet in height. They were so small that the explorer often thought his scouts had



Beale

NATIVE WIRELESS IN ANGOLA

Here we see the mondo or message-drum used in the Zombo highlands. By beating upon this wooden instrument the natives can send sonorous messages in code for long distances. News travels rapidly by this means.

caught children, until he perceived that they were full grown men and women. The women averaged but four feet in height and none of the men were over four feet six inches.

These tiny black folk live by hunting, and they are extraordinarily skillful at tracking game through the dark, swampy forests and killing it with their bows and arrows. They live in villages of small grass huts shaped like bee-hives. Stanley found one village of ninety-two huts. But the pigmies were very shy and always de-



Belgium Chamber of Commerce

MATADI, IN THE BELGIAN CONGO, A BUSY PORT AT WHICH OCEAN-GOING STEAMERS CAN CALL

Belgium's most inland port, ninety-five miles up the Congo, is an important export centre. Ocean-going vessels dock in its harbor, and rail connections with Leopoldville (Stanley Pool), some 250 miles farther, beyond the rapids, bring the produce of a country rich in rubber, ivory, copal, palm-nuts and palm-oil, copper, gold, diamonds and tin. An oil pipe line transports crude oil for the use of the river steamers plying below Matadi. Above the rapids the Congo and its tributaries are again navigable and for a total distance of over sixteen hundred miles.

sented their villages as Stanley's men approached, although from time to time a few were captured and examined. These villages they abandon when they feel the need to move on, for a time, to where game is more plentiful. These forest dwarfs of the hidden recesses of the Congo are better termed Negrillos.

The vast basin of the Congo does not all belong to Belgium. Thirty-five years before Stanley unveiled the secrets of the river, the French had settlements on the Gabun River, some five hundred miles north of the mouth of the Congo, as we see in another article. Then in 1880 de Brazza placed under French protection a portion of the north bank of the Congo—from below Stanley Pool for four hundred miles to Ubangi. From here the whole northern bank of the Ubangi to the borders of the Anglo-Egyptian Sudan is French. It is therefore seen that almost all the northern tributaries of the

Congo flow through French territory.

While many northern tributaries of the Congo water French possessions, some of the southern tributaries rise in Portuguese soil. In the fifteenth century, when the mariners and soldier-adventurers of Por-



E. N. A.

WARRIOR SUBJECT OF FRANCE

This tall native of the French Congo lands, with his long, broad-bladed spear, is a born warrior. Fighting is the greatest pleasure of the wild tribesmen of this region.

tugal found the way up the main river blocked by rapids, they turned their attention to the country immediately to the south—the dominions of that King of Kongo above mentioned. Long years of exploration, conquest and colonization have resulted in the establishment of Portuguese rule over a vast tract known as Angola, the capital of which, the ancient port city of Loanda, has rail connection with the interior. The region is adapted to the growing of sugar and coffee and the raising of oxen, but the territory is largely undeveloped.

In both the French and the Portuguese Congo the natives, with the exception of the pure Negrillos (pigmies), belong to the great Bantu family; and in times past supplied the slave traffic to a very large degree.

Though it is rumored that in certain tribes, rites involving human sacrifice are practiced, as when a man's wives are buried with him, little is really known.

The Chicago Field Museum of Natural History is, however, sending an expedition to work inland from the coast of Angola with native carriers, pack-mules and bullock-carts to learn, if possible, the secret rituals of this primitive people.



American Museum of Natural History

RATTLE-DRUMS, TOM-TOMS AND HORNS FOR THE TRIBAL DANCE

IN THE HEART OF AFRICA: FACTS AND FIGURES

BELGIAN CONGO

Belgian Colony in Equatorial Africa occupying the greater part of the basin of the Congo River. Administered by the Minister for the Colonies appointed by the King and the Colonial Council consisting of 15 members. Legislation for the Colony is vested in Parliament. The King is represented in the Colony by a Governor-General. For administrative purposes the Colony is divided into 21 districts grouped into 5 Provinces, each with a Governor. The estimated area of the Colony is 918,000 square miles; the native population is about 8,500,000; the white population in 1928 was 20,702. The chief products are palm-nuts and palm-oil, white copal, rubber and cacao. Gold, diamonds, copper and tin are mined. The chief exports are: copper (ore and crude), palm-nuts, palm-oil, cotton, rubber and tin; chief imports: machinery, provisions, cottons and alcoholic beverages. State steamship service on Congo; railway mileage, 1928, 2,187. Length of telegraph line, 3,090 miles; telephone line, 2,520; 19 wireless telegraph stations. Protestant and Catholic mission schools, government-aided; 231,684 pupils in elementary schools. Capital, Leopoldville.

FRENCH EQUATORIAL AFRICA (French Congo)

Consists of the four colonies of Gabon, Middle Congo, Ubangi-Shari and Chad. Each of the colonies has a Lieutenant-Governor; they have financial and administrative autonomy and each has an administrative council. The

Lieutenant-Governors are under the Governor-General of French Equatorial Africa who is assisted by a Secretary-General and a Council of Government. Total area, 912,049 square miles; population in 1926, 3,127,707. Natural resources largely undeveloped. About 300,000 square miles of tropical forest containing valuable timber. Large numbers of domestic animals and ostriches are raised; coffee, cacao and cotton are cultivated. Ivory is exported. Length of telegraph line, 3,253 miles. In 1927, there were 50 public schools with 3,553 pupils.

ANGOLA (Portuguese West Africa)

Portuguese colony administered by a High Commissioner, stationed at Loanda. The colony is divided into 12 administrative districts. The area is 484,800 square miles and population in 1926 was 2,481,956. Chief products are coffee, rubber, wax, sugar, vegetable oils, coconuts and ivory. Petroleum, asphalt, malachite, copper, iron and salt are found. Chief exports: corn, coffee, diamonds and dried fish; chief imports: textiles. Railway mileage, 818; 7,452 miles of telegraph lines. Government, municipal, and mission schools with about 4,752 pupils. Capital, Loanda.

RIO MUNI (Spanish Guinea)

Spanish colony on the Gulf of Guinea adjacent to French Equatorial Africa, under the control of a Governor-General with headquarters at Santa Isabel on the island of Fernando Po. The area is 10,036 square miles.

MANDATED TERRITORY IN CENTRAL AFRICA: FACTS AND FIGURES

RUANDA-IRUNI

Former German East Africa, now administered by Belgium under a League of Nations Mandate as the fifth Province of Belgian

Congo with a Vice-Governor at the head. Total area, about 20,550 square miles. Capital, Usumbura. Both districts are rich in cattle. Exports are livestock, hides and foodstuffs.

FROM CAPE TOWN TO THE ZAMBEZI

People of South Africa's Cities, Veld and Deserts

Zulus, Boers and the boundless veld are the three things of which we are most likely to think when our thoughts turn to South Africa. The Zulus, under their great leader Chaka, dominated this part of the African continent in the early part of the nineteenth century; the Dutch were the first settlers, and much of the agricultural prosperity of South Africa is due to their skillful farming. ("Boer" is the Dutch word for farmer, or peasant.) The veld is the open grasslands over which are scattered thousands of prosperous farms. But we shall also visit fine cities, gold and diamond mines, splendid orchards and sugar-cane plantations, and primitive peoples such as the Bushmen and the Herreros of the vast Southwest Africa Protectorate.

THE Union of South Africa, down at the tip of the continent where January is the hot month, is divided into four provinces—Cape of Good Hope, Natal, Transvaal and Orange Free State. The population, which is comparable to that of New York City or London, is five-sevenths colored.

The Cape of Good Hope was discovered by the Portuguese navigator, Bartholomew Diaz in 1486, but the first attempt to colonize this pleasant pastoral region was made by the Dutch in 1652. The Cape really became a British colony in 1806, but up to 1820 the majority of the white population was of Dutch descent. Natal was settled by both English and Boers, beginning about 1824, and became a British colony in 1844-45. During 1835-38 many of the Dutch farmers, or Boers, were dissatisfied with the British administration which disapproved of their enslaving the Hottentots, and trekked north. Eventually they created the two Dutch republics of the Transvaal, north of the Vaal River, and the Orange Free State. Gold-mining began in the Transvaal in 1882, and the discovery of gold brought a great increase of prosperity to South Africa—until the outbreak of the South African War (1899-1902).

Later, strenuous efforts were made to develop the land more fully and to unite the different elements in the population, the English and the Boers of Dutch descent. These efforts were crowned with success in 1910, when the Union of South Africa was formed. Since the World War the region that was formerly Ger-

man Southwest Africa has also been administered by the Union government under a mandate from the League of Nations. Southern Rhodesia, that part of Rhodesia situated between the Transvaal and the River Zambezi, is also dealt with in this chapter.

We shall start our tour of South Africa from Cape Town, which is at the southernmost end of the African continent. It lies on Table Bay beneath the shadow of Table Mountain, part of which is, as its name suggests, flat-topped, and part of which looks, in the distance, like a lion's head. Cape Town is the oldest settlement in South Africa and an important port of call. In its streets we shall see not only British people and the Boers, with their large, wide-awake hats, but Kaffirs (the natives of the colony) and coolies from India and Malaya. Native boys and girls, dressed in all sorts of gaudy costumes, sell heather in the streets, for the heather that grows near Cape Town is famous for its beauty and variety of color.

Traveling northward from Cape Town, we pass through a region of rugged, barren mountains and fertile, well-watered valleys in which the earliest European settlers—the Dutch and French Huguenots—made their homes. This land is beautiful and fertile and produces fruit in abundance, particularly grapes.

North of this again we reach the great tableland of the Karroo, a vast plateau broken up by small hills called "kopjes." It is sparsely covered with small bushes of a dull olive green which are known as



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LOOKING DOWN UPON THE MARKET AND OVER CAPE TOWN TO CLOUD-CAPPED DEVIL'S PEAK

In 1652 the Dutch built upon the shores of Table Bay the first settlement in South Africa. This became Cape Town, and it was so widely used as a port of call on the voyage to the East that it gained the nickname of the "Tavern of the Indian Ocean." It is now a widespread

and beautiful city, with the sweep of the bay before it. Behind it is the curious height that has been most aptly named Table Mountain, for its mile-long top is entirely level. Devil's Peak is an outlying spur to the east; the Lion's Head and the Lion's Rump lie on the west.



South African Rlys.

FORDING THE BERG RIVER, WHICH HAS ONE OF THE MOST BEAUTIFUL VALLEYS IN CAPE PROVINCE

We cannot travel far in the Cape of Good Hope Province without being struck by the great natural beauty and variety of the landscape. Here, thirty-six miles from Cape Town, we see the Berg River, where, near the little town called the Paarl, it winds between wooded banks over-

looked on one side by the peaks of the Drakenstein range and on the other by the Pearl Mountains. Much of the best South African wine is produced in the upper valley of the Berg, for the steep lower slopes of the rugged mountains are clad with fruitful vineyards.

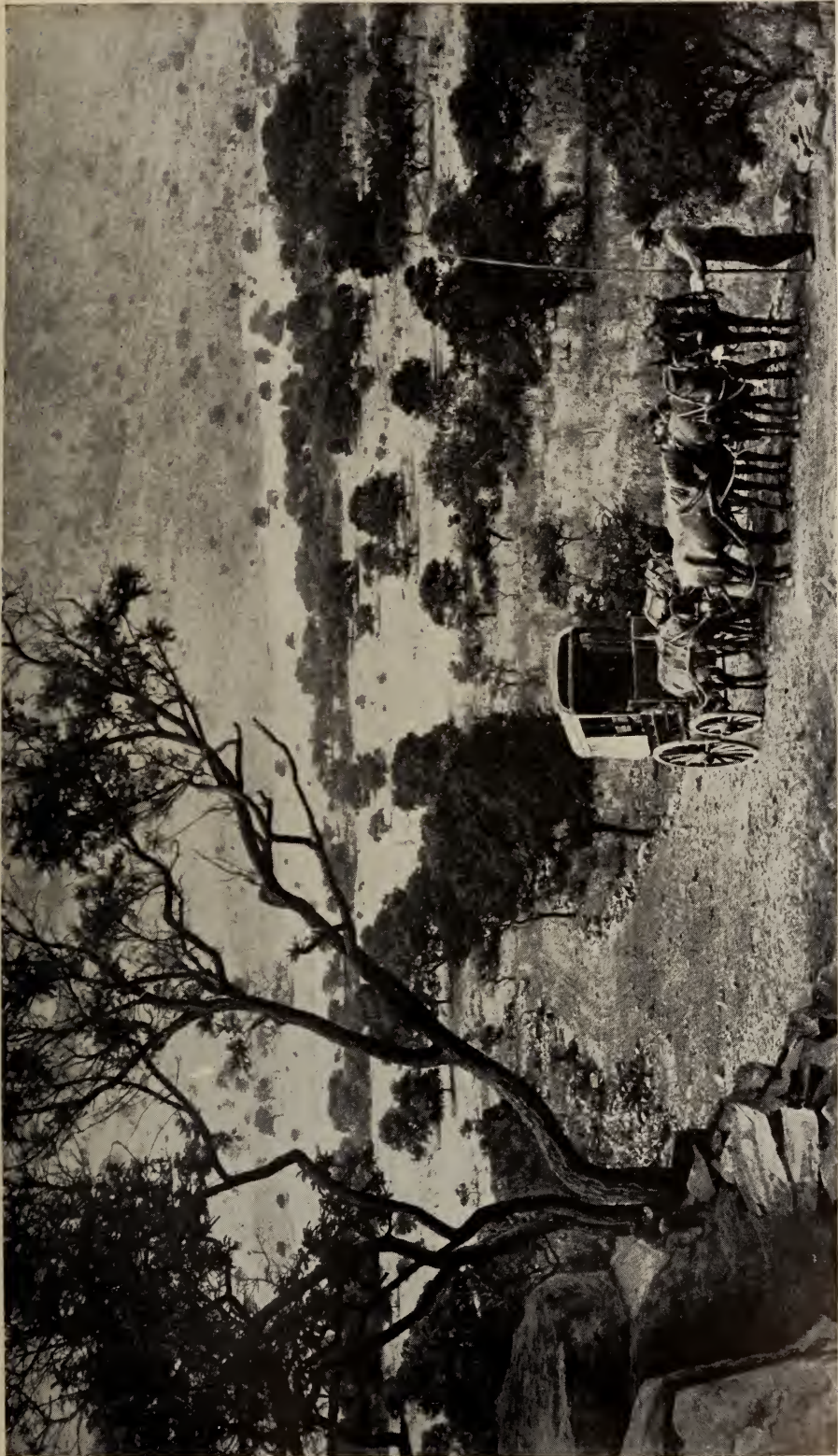


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ON A SOUTH AFRICAN FARM WHERE THE "CHICKENS" GROW EIGHT FEET HIGH

More ostriches are bred in the Cape of Good Hope than in any other part of South Africa, and especially in the valleys of the Breede River and its tributaries there are many thriving ostrich farms. The one shown above is at Montagu, a village near the pass of Cogman's Kloof.

The huge birds are kept in enclosures—those of the adults being about ten acres in extent, those of the chicks one hundred acres. We can tell the sex of these ostriches at a glance, for the males are black with white tail and wing plumes, while the females are a uniform gray.



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PASSING THROUGH THE WOODED GRASSLANDS OF THE DE KAAP VALLEY ON THE ROAD TO BARBERTON

Barberton, in the eastern Transvaal near Pretoria, is situated on high ground and is ringed around with spurs of the great Drakensberg range, so that, from whichever side we may approach it, there are hills to climb. That is why this carrier, though he has a team of six ponies and

mules to draw his light cart, is letting them rest awhile. Notice the extreme length of his whip. Barberton is the centre of a gold-mining district and sprang up as if by magic during the gold rush of 1886. It is happily situated in the midst of a beautiful countryside.



© E. N. A.

UNION GOVERNMENT BUILDINGS AT PRETORIA, ONE OF THE FINEST POSSIBLE SITES

Pretoria, which in 1860, five years after its foundation, became the capital of the Transvaal, is now the administrative capital of the Union of South Africa. It is a clean, well-built city, and of all its excellent buildings, this, the Union Government Building, made of native materials and completed in 1915, is considered the finest. It stands on the flank of a hill with the city spread below. The avenues of Pretoria show as green lines, for they are planted with willows, palms and plane trees, oaks and *Ficoides*—large tropical trees with blue flowers.

Karoo bush. The air is clear, and we can consequently see very far. Indeed, rocks and big stones lying on hills several miles away stand out so boldly that we can almost count them. Occasionally we pass farms nestling among the hills, surrounded by small gardens and orchards, and here and there we cross a stream.

Most of the streams, however, dry up during the hot season; then water must be obtained from springs or by artificial means. In the early summer, if there has been a good rainfall, the Karroo becomes a wonderful flower garden, and it is possible to gather as many as sixty varieties of flowers; but this period does not last long. At the end of about two months the flowers are dead and the Karroo is again a desolate waste.

The Karroo is inhabited chiefly by British and Boer farmers, whose homes are often from twenty to fifty miles apart. The native inhabitants are largely Kaffirs, Hottentots and Bushmen.

All this time we have been traveling through Cape of Good Hope Province, but when we pass over the Orange River we cross into the Orange Free State. Here commences the highest and largest South African plateau, which extends across the Orange Free State, Bechuanaland and into the Transvaal, which adjoins Southern Rhodesia.

World's Richest Gold Field

West of Bechuanaland is the Kalahari Desert, which was once the home of vast herds of game, but is now a useless waste. The Kalahari stretches into the South-west Africa Protectorate, a desolate region rich in minerals, lying between Angola and Cape of Good Hope Province. In the east of South Africa is a lofty range, the Drakensberg Mountains, and between them and the coast is the province of Natal.

Kimberley and Johannesburg are the two principal cities in South Africa from the point of view of wealth and industry. Kimberley is noted for its diamonds and Johannesburg lies in the richest gold belt in the world. In the gold mines, shafts several thousand feet

deep have been sunk in the earth, and galleries have been driven out in all directions at the bottom in the search for gold, of which there seems to be a never-ending supply.

In 1835, as has been already stated, the Boers began to leave Cape Colony with their herds and flocks to settle in a land where they could live as they wished. To reach the Transvaal, where they founded a separate republic, these emigrants had to pass through the country of the Zulus, a warlike people who had conquered a large part of South Africa and possessed a vast army of trained warriors.

Boers Fight with the Zulus

One morning in the summer of 1836 it was reported that the Zulus were advancing to attack the emigrants. The Boers therefore formed their wagons into a square and piled branches between the wheels in order to prevent the natives from squeezing through. Then, with the women and children to load the rifles and prepare the ammunition, they waited for the black army to attack. This it soon did, opening out to right and left in the shape of two horns in order to encircle the wagons. The Zulus came on in thousands, seizing the wagons and trying to wrest them apart, ripping up the canvas covers with their broad-bladed spears and yelling their fierce war cries. But the Boer men and women fought with great determination and at last beat off the enemy. The Zulus, however, took away all their sheep and cattle and they would have starved but for the arrival of fresh parties who joined them in their northward trek.

Harvest Time Among the Matabele

The Matabele, who are a branch of the Zulu race, found in Southern Rhodesia, are among the best known of the South African tribes. They are tall, fine-looking people and live in round huts, with doors only some two feet in height. Their diet consists of meat, corn meal, milk and a form of native beer which they drink in large quantities. They have several festivals during the year, the chief of



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PRESIDENT'S RESIDENCE THAT IS CALLED A BARN

This handsome building, so beautifully situated among the trees on the slope of a hill, is Groote Schuur—Great Barn—the old Dutch home of Cecil Rhodes at Rondebosch. It is now held in trust as the official residence of the President of the Union when he is at Cape Town, for it is only five miles from that city.



South African Govt.

HOW MAILS ARE CARRIED ON THE OUTSKIRTS OF THE KALAHARI

This is the post office of Mariental, in what was once German Southwest Africa. From the fact that camels are the mail-carriers we know it must be in desert country. Indeed, the great Kalahari Desert stretches eastward for wearisome miles. The coastal strip of Southwest Africa is also barren, but the central highlands are more habitable.



South African Govt.

PIETERMARITZBURG IN AN AMPHITHEATRE OF HILLS

From the tower that surmounts the town hall we can here look down upon Pietermaritzburg and see the straight line of Church Street reaching away toward the surrounding hills. Pietermaritzburg, which has direct rail connections with the Transvaal, is the capital of Natal, a country of vast sugar and other plantations.



Nicholls

BOER HOUSEHOLD ON TREK: HOW A "REMOVAL" IS CARRIED OUT OVER THE SOUTH AFRICAN VELD

Seven yoke of bullocks seem a large number to draw one wagon, but when the wagon is loaded with all the household belongings of a farmer and with his wife and child, and when it has to travel not along hard, made roads but over the open veld, or, at best, over a rough, uneven,

track, it does not seem too many. The farmer to whom this wagon belongs stands in the background, watching while it fords a narrow stream, ready with the long goad he carries over his shoulder to urge on any bullock that seems inclined to shirk a fair share of the hard pull.



Nicholls

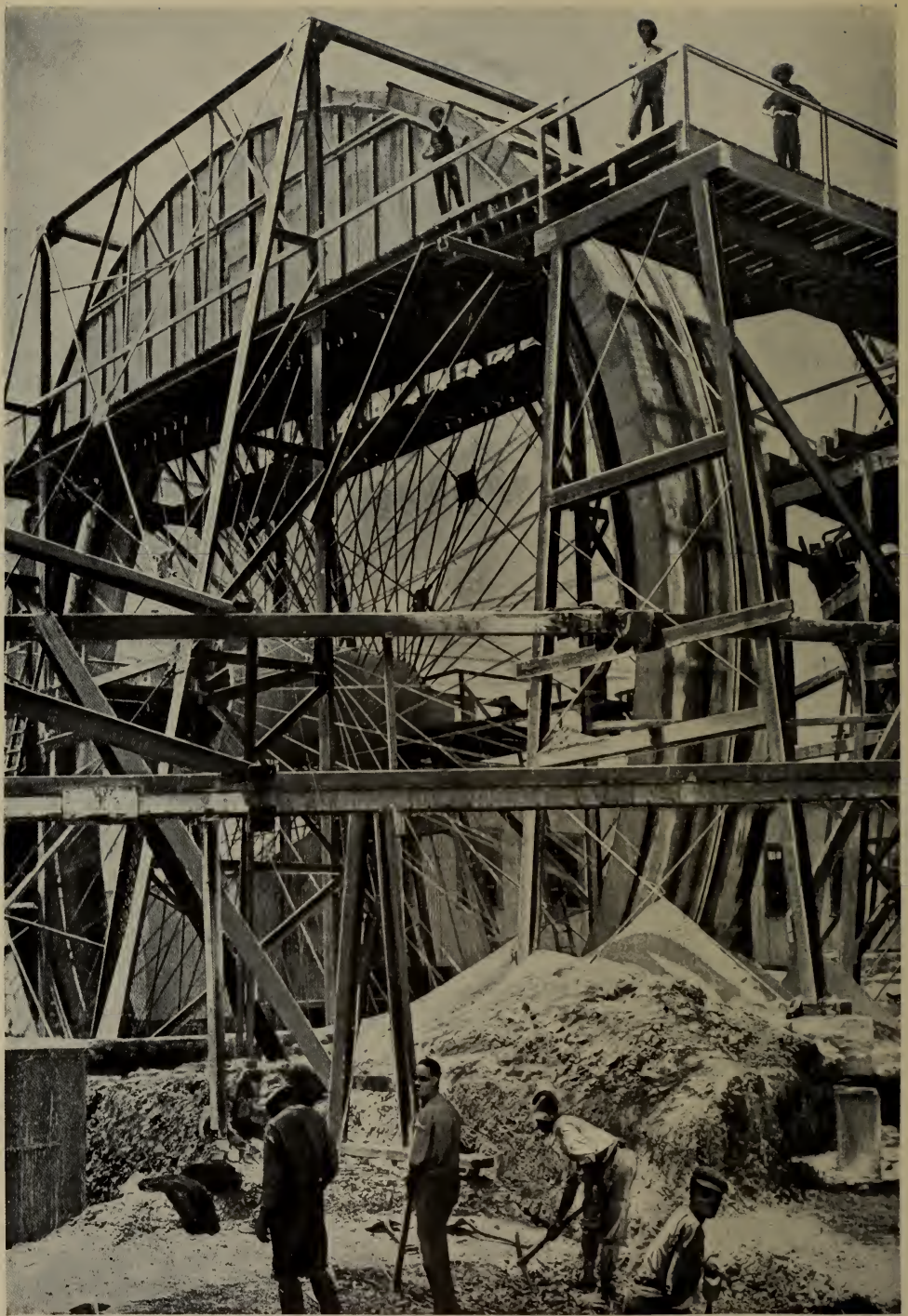
LIKE HIS FATHER, THE BOER BOY RIDES AND CARRIES A GUN

Formerly the boy in a Dutch Afrikaner, or Boer, family would be sent out early in the morning with only one cartridge and would be expected to bring back game for the table. That shows what a high value was set upon marksmanship. The people called Boers are the sturdy descendants of the early Dutch colonists.

which comes at harvest time. On the great day, when the harvest has been a good one, all collect in a vast square in the village of the tribal chief. There may be as many as two or three thousand warriors formed in a semicircle eight or nine deep, each man with his assagai, or spear, and shield. They then begin to chant a song, keeping time with their feet; occasionally they beat with their assagais

on their ox-hide shields, making a noise like thunder.

Now a man who has performed some great deed will spring out from among the warriors and execute a dance, thrusting with his assagai and otherwise showing how he would dispose of his enemies. Nearly all the warriors wear ostrich feathers stuck in their hair and have coats of the skins of different animals.



© E. N. A.

TAILINGS WHEEL USED AT A GOLD MINE IN THE TRANSVAAL

There are two important minerals for which South Africa is renowned—one of these is gold, the other diamonds. The Witwatersrand, or the "Rand," is the most famous gold field. It is in the Transvaal, just west of Johannesburg. Here we see a "tailings wheel," which removes the refuse from which the ore has been extracted.



South African Rlys.

LOOKING OVER THE HOUSE-TOPS OF JOHANNESBURG

Johannesburg did not even exist until 1886 and the land, poor for farming, sold cheap. Suddenly gold was found at Witwatersrand (pronounced with a v). Ten years later two building plots were sold for about \$100,000 apiece. The city is now the largest in South Africa. Cosmopolitan, energetic, it has become a bustling railroad and industrial centre.

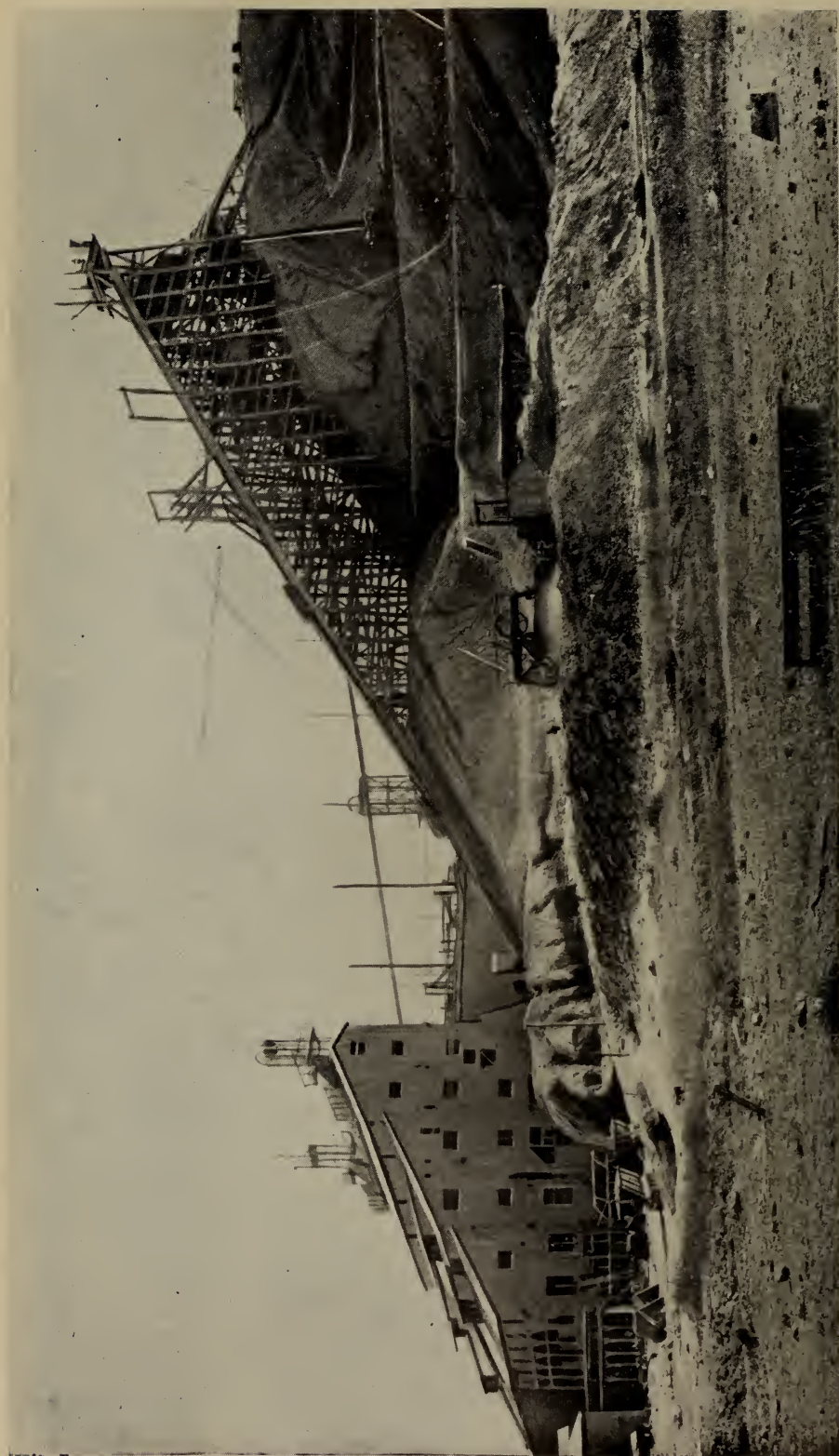
The Bechuanas are another of the native races of South Africa and live in much the same way as the Matabele. They have the curious custom of adopting some animal as a sort of tribal mascot. Sometimes it is a crocodile, or it may be an antelope, a monkey or an elephant. Their dress is usually a cloak made from skins, and they are fond of ornaments in the shape of bracelets and anklets of beads, metal and the teeth of wild animals. For weapons they have assagais, small daggers and clubs called knobkerries, often beautifully carved.

The Bechuanas also are fond of dancing, and when several thousand of them perform together the scene is really splendid. Their marriage customs are similar to those of other South African tribes. The wife is acquired by purchase, her value varying according to her looks and her reputation as a housekeeper.

Rhodesia is named after Cecil Rhodes, a pioneer who in 1889 organized the British South African Company. It was also the land of Livingstone. We have pictured the country that he described, the waterfalls, which hamper water transportation, the herds of elephants, the rhinoceros and hippopotami in the rivers, and the lions lurking in the jungle. If

we go to Rhodesia to-day, however, we shall find that the elephants have largely disappeared, though lions are still to be found back in the bush. Rhodesia is a lofty tableland with a semi-tropical climate and beautiful scenery. It is rich in minerals, especially gold. On the Zambezi River, which flows through Rhodesia, are Victoria Falls, the mightiest falls in the world and a favorite with tourists, which we show in the chapter The Wonder of the Waterfall.

Southwest of Rhodesia lies the Kalahari Desert, where there is little rain and the precious springs are few and far between. The Kalahari is not like the usual desert, for it has small trees and bushes and occasional herds of antelope. Its inhabitants are a dwarf race known as Bushmen and Hottentots; their language is one of clicks, made by peculiar movements of the tongue inside the mouth. Each click has a certain meaning. These little brown people wander from place to place without settled habitation, sleeping under rocks or in the shelter of trees and bushes, with a rough lean-to of brushwood. Even in the old days they had no flocks or herds and lived from hand to mouth, existing on the game of the country, which they shot with their bows



South African Rlys.

WINDING-PLANT AT THE SURFACE OF ONE OF THE FAMOUS DIAMOND MINES AT KIMBERLEY

Johannesburg owes its existence to gold; Kimberley, in Griqualand West, to diamonds. The first diamond was found in 1870 by a Dutch farmer, who noticed some children using it as a plaything. Two years later the same man bought one from a Hottentot for £400 (about \$2,000), and

to-day it is valued at £25,000. Needless to say, diggers quickly arrived in great numbers, and soon four valuable mines were discovered—all within an area of three and a half square miles. Here we see the winding-plant that brings up the "blue ground" in which are the gems.



South African Govt.

LITTLE BLACK BOYS HELPING AT THE SORTING TABLES OF A SOUTH AFRICAN DIAMOND MINE

The Premier diamond mine near Pretoria is the largest of all. Here in 1905 was found the "Cullinan," the largest white diamond on record. It weighed 3,025¾ carats. It was presented by the Transvaal government to Edward VII. Diamonds are found in hard rock known as blue

ground, which is blasted, brought to the surface in buckets, then spread on the dumping grounds to weather. Often (as at the diggings near Port Nolloth), the workmen live inside barbed wire fences patrolled night and day by armed guards on the lookout for confederates.



Stuart

ZULU KRAAL SITUATED IN THE HILLS BEHIND THE COASTAL PLAINS OF NATAL

Zululand, situated in the province of Natal, is inhabited chiefly by a people of Bantu stock, who at one time were the terror of the other inhabitants of South Africa. Many of the Zulus are now engaged in

agriculture, and some of them own large numbers of cattle, sheep and goats. At night the animals are driven into an enclosure near the kraal, or group of houses, like that shown above.

and arrows. The bows they made from the branches of trees and the strings from the sinews of wild animals. For warfare they used arrows that were poisoned by being dipped in juice obtained from a plant or from a certain caterpillar. They still follow their old form of life, and when brought into touch with civilization they often pine away and die.

The Bushmen are especially interesting because their ancestors painted pictures of animals on rocks and in caves. These pictures are really amazing, considering that they were done by primitive men. They are finished with an accuracy that we cannot surpass to-day, and are still in a wonderful state of preservation. The Bushmen once occupied all South Africa from the Cape to the Zambezi, but they have gradually been driven before other and more powerful tribes, until now they inhabit only the Kalahari, Bechuanaland and Southwest Africa.

Living close to Nature, they are wonderfully active and notice everything that is going on around them. They have a highly developed sense of direction and can find their way about on the darkest night. Though very small, they are incredible eaters. One man, it is said, will eat half a sheep at a sitting, and for him to dispose of forty to fifty bananas at a meal is nothing uncommon.

The Bushmen's homes are simple affairs. As the tribes are constantly on the move, their household goods consist of a few earthenware pots, spears and clubs for hunting and for use in warfare, ostrich eggs to carry water, tortoise-shells for holding food when in camp, and a few skins of wild animals for rugs and blankets. These little black men are excellent hunters; once an animal is wounded they follow it up until it is exhausted. Their powers of endurance are equal to those of the wild beasts, and they will run down a wounded deer even on the hottest day, keeping their quarry constantly on the move and allowing it no rest until it drops. A party of Bushmen once pursued a wounded giraffe for a distance of more than forty miles; then, when they had killed it, they went back the same



South African Govt.

FORBIDDING RAMPART OF THE DRAKENSBERG MOUNTAINS ON THE WESTERN BORDER OF NATAL

Along the western frontier of Natal runs a range of mountains, the Drakensberg, which terminates suddenly in vast chasms and walls of rock. One of the peaks, the Giant's Castle, is eleven thousand feet in height, and several others rise to a considerable height. Natal occupies

only one-thirteenth of the territory of the Union of South Africa, but it contains a greater variety of scenery than the other provinces. It might be termed the garden of that portion of Africa lying south of the Zambezi. The province supplies the whole of South Africa with sugar.

distance to bring up their families to indulge in the feast.

The Bushmen's knowledge of the habits of animals is probably unsurpassed. They seem to know exactly what an animal is going to do. They will watch a flight of bees high up in the skies where it is practically invisible to a white man. They will follow it until they reach the tree where the bees have their combs and steal the honey.

The Bushmen have many quaint beliefs. They say that when one of their number dies his spirit goes on a long journey until it arrives at a place where others have gone before, and that when they meet they share the hunting-grounds together. To them the wind, the dust, storms, lightning and all things in Nature are associated with spirits and are regarded with considerable fear.

They also believe that men and women can, in another existence, change themselves into animals. They regard natural phenomena as living things, but they do not worship either the sun or the moon. They remark, however, that the sun retires to bed each night and gets up in the morning like a human being.

Huge Hats of the Herrero Women

Southwest Africa, which was German territory until the end of the World War, is inhabited by the Herreros, a pastoral tribe whose dress is especially remarkable. The women wear huge caps made of skins, which terminate in three points like horns and from each of which hangs an ornament. The weight of this head-dress is often great, yet, despite the heat and the discomfort, no Herrero woman would dream of appearing without her hat. In addition to this she has heavy metal ornaments, and her arms are covered with bracelets or what appear to be pieces of metal piping.

The customs of the Herreros are often cruel; for instance, those who are suffering from some disease which is believed to be incurable are left in a hut in the jungle until death or some wild animal makes an end of them. Old people are treated in the same way.

Hero of a Famous Duel

In Natal we find the Zulus and the Swazis, whose manners and customs are somewhat similar, as the Swazis fell under the dominion of the newly constituted Zulu nation in the early nineteenth century. Before the Zulu War in 1879 this tribe was organized into regiments and constantly engaged in wars and war-like preparations. They lived in large villages of huts, as they do now, and waged war on all the neighboring tribes, establishing such a reputation for ferocity that no tribe could oppose them.

When a Zulu army returned from any expedition, the men were paraded before the chief, who directed them to bring out any who had shown fright in warfare. These unfortunates were instantly killed as an example to the others. Much of the influence that Great Britain afterward acquired over the Zulus was due to a British subject, Colonel Johann Colenbrander, who lived for years among them.

He is said to be the only white man who has ever killed a Zulu warrior in single combat. The great duel took place on uneven ground, and just at the beginning of it the white man's weapon was rendered useless by a blow from the Zulu's battle-ax. The latter also carried an assagai. But the white man closed with him and after a desperate struggle actually succeeded in lifting the Zulu in the air, working his spear around him and impaling him on the weapon.

Plantation Coolies from India

Many of the native inhabitants of South Africa are employed as servants or farm laborers or in the gold and diamond mines and factories. They regard this work as being only temporary, and when they have earned sufficient money to buy a wife or some land they give it up.

In the districts where tea is grown there are thousands of Indian coolies who work on the plantations, and they enjoy certain privileges which are denied the native races.

Sugar-cane has been planted successfully in South Africa. Indeed, large



Nicholls

TWO STICKS INSTEAD OF ASSAGAIS ARE CARRIED BY THIS ZULU

The Zulus, descendants of a race of warriors who were the overlords of the greater part of southeastern Africa, still retain their pride. If this powerfully built man were armed with assagais and had the ring of a proven warrior upon his head, he would be a counterpart of the Zulus of the nineteenth century who formed Chaka's regiments,



© E. N. A.

TWO WORKERS ARE SUFFICIENT TO BUILD A ZULU HOUSE

Somewhat resembling beehives in shape, the Zulu huts are made by fixing flexible branches firmly in the ground and bending them over to form hoops. These are interlaced with other branches, and the whole structure is thatched. By the man on the ground is the door, which is so low that people can pass through only on hands and knees.



Craft

ZULU DOCTOR CONSULTING WITH HIS CLIENTS

At one time the Zulu witch doctors were very powerful and had considerable influence over the chiefs. They used to "smell out" criminals by means of magic, but this custom was suppressed by the British. Now they are consulted by the people upon many occasions and also prescribe treatment for both man and beast.



South African Govt.

LOYAL CITIZENS WHO WERE ONCE THE WHITE MAN'S ENEMIES

Both the Boers and the British had to fight the Zulus, the most warlike of the Bantu tribes: and it is only within comparatively recent times that the Zulus have settled down as peaceful citizens. This fellow is ready to perform the war-dance. He is holding a knoberry, the Zulu club. The young women have stylishly waxed their hair.

FROM CAPE TOWN TO THE ZAMBEZI

areas are given over to sugar-growing. Here too we shall find Indian coolies extensively employed on the plantations;

but if we go into a Natal sugar refinery we shall see "black boys" at work operating the machinery.

FROM CAPE TOWN TO THE ZAMBEZI: FACTS AND FIGURES

THE UNION OF SOUTH AFRICA

A British Dominion, consisting of the provinces of Cape of Good Hope, Natal, Transvaal and the Orange Free State. There is a Governor-General and an Executive Council in charge of the Departments of State; legislative power vested in a Parliament consisting of the Governor-General, representing the King, a Senate and House of Assembly. Each province has an Administrator and an elected Provincial Council. The total area of the Union is 471,917 square miles; the total estimated population in 1927 was 7,659,399, of which 1,708,955 were Europeans. Agriculture, stock-raising and mining are the principal occupations. Chief crops: corn, wheat, potatoes, oats, Kaffir corn, barley and tobacco. Mineral products are: gold, diamonds, coal, copper, asbestos and tin. Chief imports: cotton piece goods, motor cars, wearing apparel, furniture and electrical machinery; chief exports: gold, sheep's wool, diamonds, hides and skins and corn. Railway mileage in 1927, 11,198; length of telephone wire, 336,331 miles; telegraph wire, 37,107. Elementary education controlled by the 4 provinces. In 1926 there were 620,307 students in state and state-aided institutions other than schools of higher education; University of South Africa has 6 constituent colleges; 2 other provincial universities. Many religious denominations represented. Estimated population of chief towns in 1927: Johannesburg (Transvaal), 314,980; Cape Town (Cape), 246,287; Durban (Natal), 108,349; Pretoria (Transvaal), 72,569; Port Elizabeth (Cape), 54,295.

BECHUANALAND PROTECTORATE

Territory divided into 11 districts for administrative purposes; native chiefs rule; Resident Commissioner in Mafeking; assistant Resident Commissioner in Francistown. Country largely pastoral; 30,050 head of cattle exported during year 1927-28.

SOUTHERN RHODESIA

Governor assisted by an Executive Council and advisory native councils (optional), and a Legislative Assembly. Total area, 149,000 square miles; estimated population in 1927, 995,968. Education receives government aid. Agriculture, stock-raising and mining chief

occupations. Chief crops are corn, tobacco and citrus fruits; chief exports are gold, tobacco, foodstuffs, asbestos and chrome ore. Railway and motor services. Chief towns: Salisbury (capital), population, 20,137; Bulawayo, 18,674.

SWAZILAND

Under jurisdiction of High Commissioner for South Africa represented by Resident Commissioner at Mbabane. The area, 6,704 square miles; population (1921), 112,338. Chief occupations, agriculture and stock-raising. Chief exports: cattle, tin, tobacco, hides and cotton. Education government-aided. Daily motor car service on main routes.

BASUTOLAND

Governed by a Resident Commissioner under the direction of the High Commissioner for South Africa; legislative authority vested in High Commissioner. Area, 11,716 square miles; population in 1921, 499,781. Chief exports: wool, wheat, mohair, Kaffir corn and corn. Education government-aided. Population of Maseru (capital), 2,289.

MOZAMBIQUE (*Portuguese East Africa*)

Consists of 3 distinct entities (1) Province of Mozambique, administered by the state (area, 295,000 square miles); (2) territory under the Companhia de Moçambique (area, 58,840 square miles); and (3) territory under the Companhia do Nyassa (area, 73,292 square miles). The total population is 3,482,914. Chief exports are sugar, raw cotton and corn. Railway communication, 7,452 miles of telegraph line in 1925. Chief ports: Mozambique and Beira.

ISLANDS

Mauritius, in the Indian Ocean, 500 miles east of Madagascar, has an area of about 720 square miles. The population of the island and its dependencies was 385,074 in 1921. A British colony, it is governed by a Governor assisted by an Executive Council, and Council of Government composed of the Governor and 27 elected or nominated members. Chief exports: sugar, copra and poonac, aloe fibre and coconut oil. Railway mileage (all kinds), 144; telephone line mileage, 116; telegraph, 400. Education government-aided.

MANDATED TERRITORY IN SOUTH AFRICA: FACTS AND FIGURES

SOUTHWEST AFRICA

Former German territory now administered by the Union of South Africa. Administrator with full authority to legislate; native commissioner at Windhoek in charge of native affairs in the Territory. Total area, 312,194

square miles; population estimate in 1926, 258,905; chief occupation is stock-raising. Diamonds, copper, vanadium and marble are mined. Railway mileage (all kinds), 1,868; telephone and telegraph systems. Population of Windhoek (capital) and environs, 15,091.

MYSTERIOUS MADAGASCAR

Interesting Island Torn From Africa

Ages ago Madagascar became a vast island, after having been a part of the continent of Africa. To-day a sweep of ocean ten thousand feet deep and 240 miles or more in width, the Mozambique Channel, lies between them. Yet the island contains not alone fossil remains of the African hippopotamus, but it has become the home of tribes of African origin—together with some of Malay extraction. Just how this came about, scientists are not sure. Some volcanic convulsion must have occurred which tore this huge piece from the southeastern coast of the continental land mass. All tribes are now united under the flag of France.

MADAGASCAR is an oval island, the largest in the Indian Ocean, with a coastline of three thousand miles little indented, though there are harbors at Tamatave, Majunga, Suarez, Diego and Tulear. Some of these ports, Tamatave especially, have been known to Europeans for several hundred years, but the interior, which rises in a hump of mountainous country, is still a mystery. Around the island, with hardly a break, lies an almost impenetrable jungle forest from ten to forty miles deep. The coasts are marshy, and fully six-sevenths of Madagascar has tropic heat with a rainy season from November to April save on the east coast where, thanks to the vapor-laden southeast trade winds, it rains throughout the year. There are terrific thunderstorms, and residents of the coast often see water-spouts and hurricanes. In the high interior there is, however, a cool season when the nights actually approach the freezing point. The mountains include hundreds of extinct volcanic cones and there are occasional slight earthquake shocks.

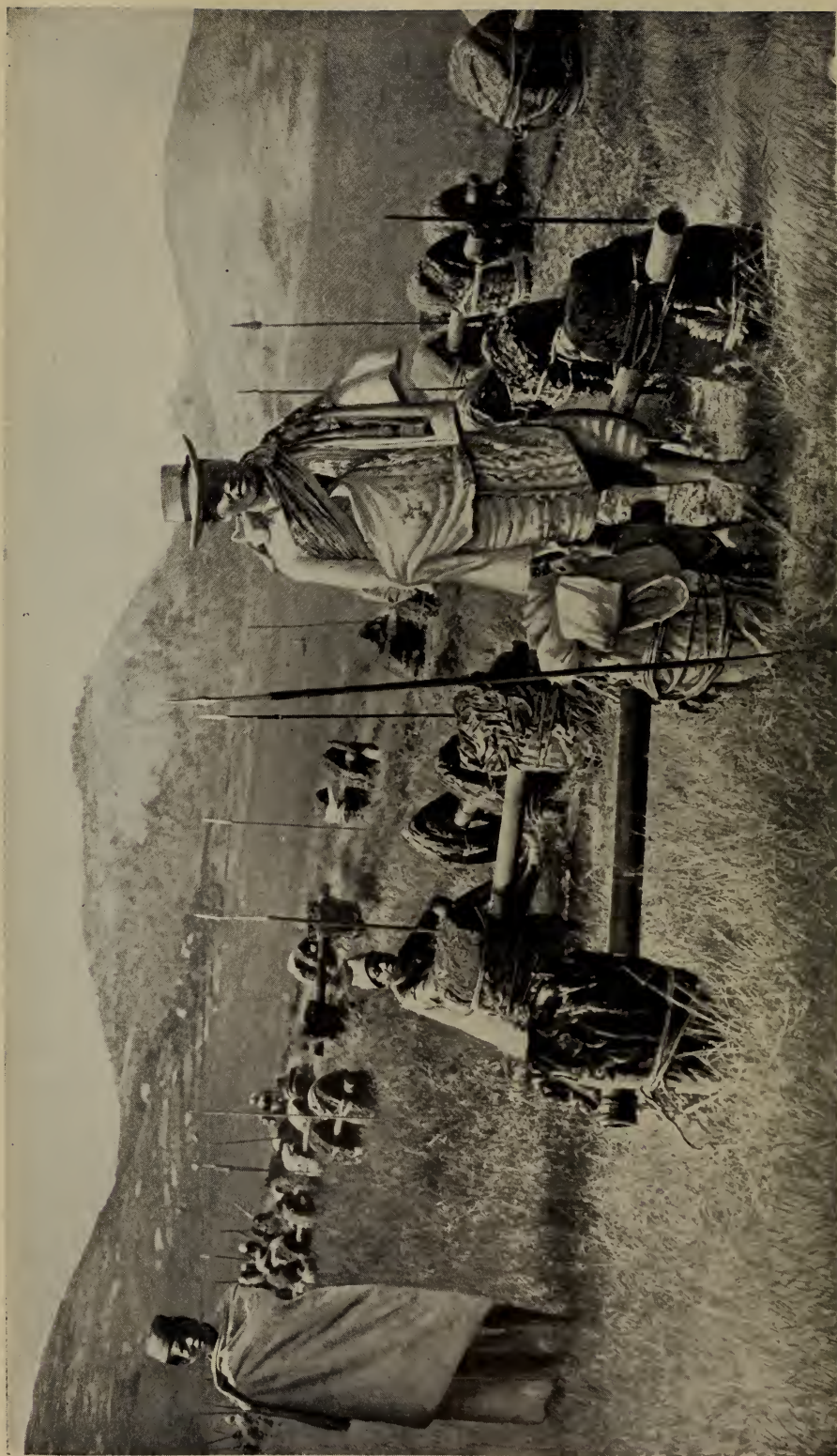
It is possible that this great land mass, which lies off the southeasterly portion of the African continent—in places but 240 miles removed from the mainland—may at one time have connected Africa and Asia. At any rate, it appears to have been torn from East Africa by some geological upheaval in remote times.

The language of the island is said to be derived from the ancient Malay, and the Hovas, the leading people, trace their origin from the Malays. There are also Sanskrit words in the language which

were brought in by Buddhist missionaries from India. There are Arabic phrases, for Arab merchants traded with Madagascar at least a thousand years ago. Both these Arabs and the Indian traders formed settlements on the coasts. Finally, on the west side of the island there are tribes showing Negro blood who are evidently descended from African settlers; and in the western forests there are the remains of a people called the Vazimba, supposed to have been the original natives of the island who were driven inland by the Malay conquerors. Added to all these there are traces of Melanesians (people from the South Pacific) but how they came is not known.

There are supposed to be between three and four million people in Madagascar. The Hovas of the central province of Imerina are the most important. The word "hovs" really means the middle class of the tribe, as distinguished from the nobles and the slaves, and the correct name of these people is Merina or people of Imerina. They do not resemble Negroes in any way: except for their dark skins they might be Europeans, though their eyes are dark brown, their hair jet black and straight. Like other tribes of the central districts, they have been Christianized by various missionary societies.

The Betsiléos, who live south of the Hovas, are larger and darker colored and their hair is curly. In the southeast are found the Baras, who are much more primitive. These people wear their hair in knobs done up with wax or fat and whitening. The middle knob is the size of a croquet ball, the others smaller. Each



Silree

ON THE WESTERN SLOPES OF MADAGASCAR'S MOUNTAINS: NATIVE HIDE-BEARERS TAKE A WELL-EARNED REST

Except for the forests that lie parallel to the coast, most of the western side of Madagascar is grassy prairie, over which roam great herds of humped cattle, some wild and some owned by the native tribes. The mammoth lozenge-shaped island has an important trade in raw hides,

which, as there are next to no railways and few roads, have to be carried to the coast by native porters. The weighty ox skins are rolled tightly in bundles and tied, as shown in the photograph, to each end of a stout pole, which the men bear over their shoulders.



Silree

PREPARING THE GROUND FOR THE RICE PLANTS WHICH PROVIDE THE CHIEF FOOD OF MOST MALAGASIES

Rice is the most important crop of the central highlands and eastern Madagascar. Near the coast it is easy to grow, but elsewhere it is planted in terraces cut in the hollows of the hills to which water is conducted often from long distances. The ground is dug up by means of narrow, long-handled spades, and oxen are used to tread out the mud preparatory to transplanting. The rice is threshed by being beaten in bundles laid over stones set upright on the threshing-floor, and stored in rice-pits. The women pound the husks from the grain in wooden mortars.



Silree

WOMAN'S WORK IN THE PADDY FIELDS: TRANSPLANTING THE YOUNG RICE IN FIELDS OF SOFT MUD

Madagascar has between 1,000,000 and 1,500,000 acres planted to rice, and smaller areas to sugar, coffee, vanilla, cloves, manioc or cassava (from which tapioca is made), tobacco, cacao (used in making chocolate), cotton, rubber and the mulberries on which silkworms are fed.

The Malagasies have many curious prohibitions which they call "fady" and which are very like the Polynesian "tapus." For instance, in one town of Imerina province it is fady for women to eat rice at all; in another place the unfortunate people may grow nothing else.



HOVA WOMEN, WITH GRACEFUL DIGNITY, DANCE TO THE ACCOMPANIMENT OF CLAPS FROM THEIR AUDIENCE

When Europeans first came to Madagascar they found that of all the native tribes the Hovas were by far the most civilized. They dressed elaborately in a pleasing costume that they still retain, although, as we see in the above photograph, European sleeved blouses are sometimes

worn as well. The Hovas were the latest arrivals from Malaya. They dwell in Imerina province, in the central highlands, and when their queen, Ranavalona III, was overthrown by the French in 1895, they had been the dominant race in the island for fully a hundred years



Seeley Service

TANALA CHILDREN CHANTING BEFORE A HOUSE OF WOOD AND THATCH

Five hundred years ago Arab traders settled in Madagascar, and one can still find traces of their influence among the Tanalas, a short people with light chestnut skins, who live among the forests of Madagascar's southeast coast. These merry children wear as a skirt a "kitamby"; it is made of rush matting. Over this a "lamba" is draped about them.

knob is quite hard and on some heads you may count as many as one hundred of them. The Baras wear great wooden earrings and around their necks necklaces hung with charms. They love brass nails, and have dozens of them fixed into the butts of their guns, cartridge boxes and powder flasks. The head of each nail is the size of a shilling.

Along the western side of the island there are no fewer than twenty-five tribes, including the Betsimisarakas, the Tanalas, and the Sakalavas, who, before the Hovas rose to power, were the rulers of the whole island.

The natives make rather superior houses, with walls of red clay or planks and high-pitched, thatched roofs with pro-

jecting eaves which are ornamented with quaint wooden figures reminiscent of those used elsewhere on totem poles. The women are clever at plaiting straw and make sleeping mats, as well as wide hats of palm-leaf, and clothing of grass, cotton or tree bark the fibres of which they separate by beating it with wooden mallets. Unfortunately some of the younger set conceive it to be the height of fashion to stain every alternate tooth black. The Malagasy folk eat quantities of rice, which they grow on irrigated land and cultivate with a narrow-bladed spade. The Sakalavas, however, live largely on cassava and sweet potatoes.

In the old days the natives used the blow-pipe—one more way in which they



Rayaka

MALAGASY FISHER LADS WITH CURIOUS BASKET-LIKE HAND-NETS

With the baskets that will hold their catch upon their heads, these young men are ready to go fishing. The most notable fishermen of Madagascar are the Vezo, a tribe of the Sakalava race, who are as much at home in the water as on land, and the Antaizakas, whose name explains itself, since it is a Malagasy word meaning "hand-fishers."



THE ONLY KIND OF CARRIAGE KNOWN TO MANY MALAGASY FOLK

The scarcity of good roads in Madagascar means, of course, that there are few carts and fewer motor cars. Those who do not wish to walk must, therefore, take a "flanjana," which is something like the Eastern palanquin, or the European sedan-chair. On level ground four porters are needed, on rough ground and for crossing streams at least eight.

resembled the tribes of the Malay Archipelago. To-day, though, most of the men have guns, usually modern rifles, besides being sufficiently good metal-workers to forge the iron found on the island into spears and arrowheads, farm implements and knives.

The people keep sheep and cattle. The cattle are like the Indian zebus with a big hump behind the neck. No one knows where they came from, for when the Portuguese first landed on the island, cattle were, even then, the principal riches of the inhabitants. Most of the sheep are of the fat-tailed breed—creatures with black heads and very little wool, whose tails make choice eating, from the native point of view.

Malagasies make dug-outs from single tree trunks for use on the rivers, while the coast-dwellers build large boats made of planks literally sewed together with palm fibre. Some of these are fitted with outriggers like those of the craft used by the South Sea Islanders. The coast tribes are good at catching fish with nets and traps.

Even though Madagascar may have been at one time joined to Africa, it was separated so long ago that the wild life is now quite different from that of the continent. Most of the wild creatures of Madagascar are small and not particularly dangerous. The worst is the foussa, a brown civet-like beast about twice the size of a cat, with a small head, short legs with strong claws and a long tail. It is nocturnal and sometimes carries off lambs and kids, and when wounded defends itself with such ferocity that the natives believe it will attack a man.

Lemurs, monkey-like creatures of which there are many different sorts, are plentiful, and they are found in few other countries. The most puzzling animal is the aye-aye, a nocturnal lemur, about as large as a cat, with big bare ears, eyes which can see in the dark, rat-like teeth with which it cuts into tree trunks in search of the insects on which it feeds, and the most amazing, spidery-looking hands. The third finger of the right hand is as thin as wire, for it is used in picking

out the grubs from the wood. It sleeps all day and feeds by night. Another queer animal is the tenrec, a spiny creature which lives chiefly on earthworms. It sleeps through the hot weather and wakes when it becomes cool.

Remains dug up in swampy places prove that there existed in Madagascar a huge, wingless bird which has been named *Æpyornis*. It would have made the biggest ostrich look small, for it was fourteen feet high, and its eggs, of which many have been found, are three times the size of ostrich eggs. It is believed to have been living up to a few centuries ago.

No fewer than two hundred and thirty-nine species of birds have been found. There are plovers, rails, herons and other familiar water-birds; also parrots, pigeons, crows, rollers, birds of prey and delightful little honey-eaters—creatures that look like humming-birds. The rivers hold two sorts of crocodile, of which one is peculiar to the island. Both grow to a great size and are dangerous to man and beast. A twenty-foot crocodile will pull

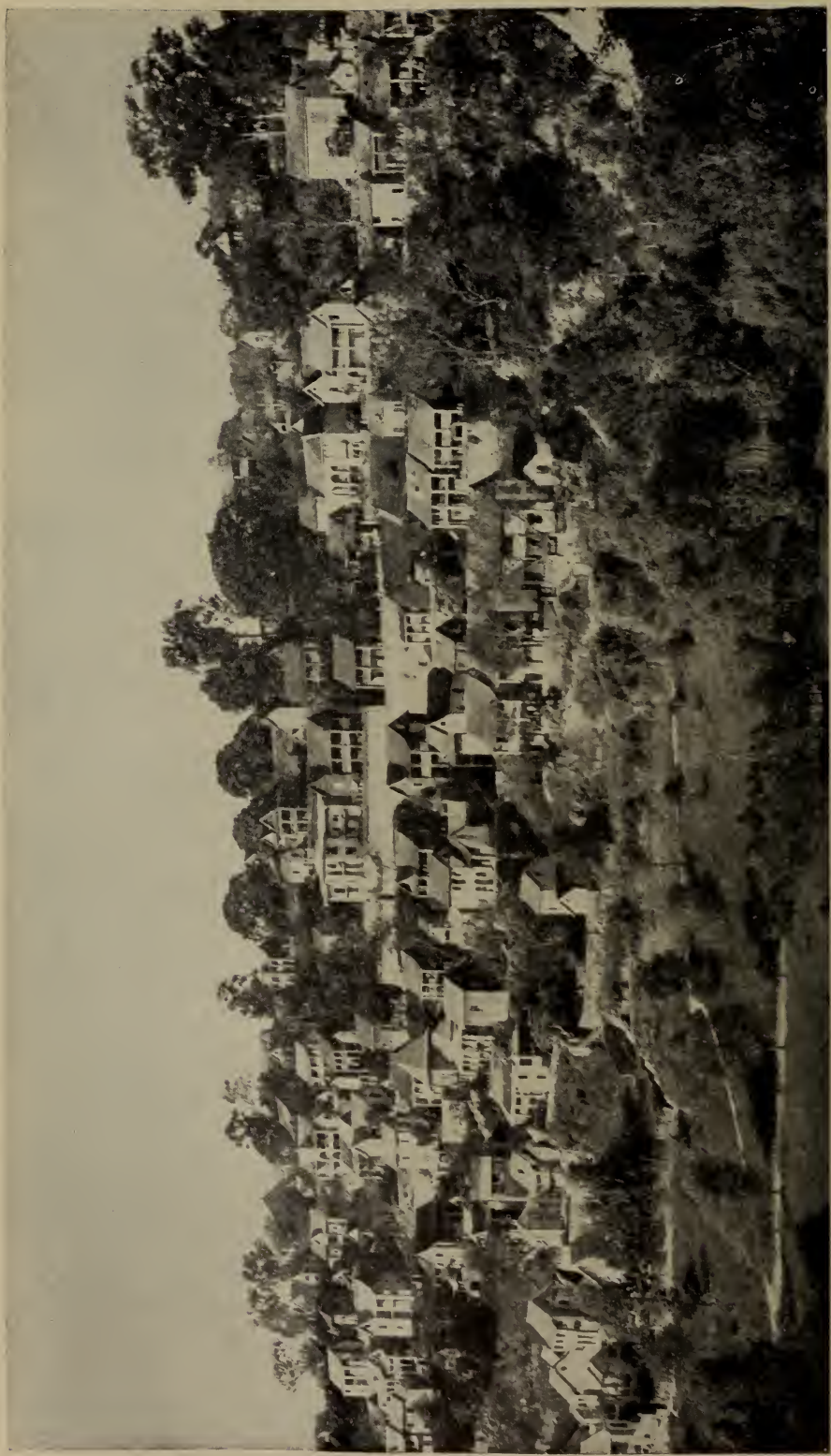
an ox into the water and drown and eat it. There are also poisonous snakes and swarms of stinging insects.

Madagascar, discovered in 1500 by the Portuguese, was for centuries an independent kingdom. The French established trading posts and began colonizing about 1700, and by the Anglo-French agreement of 1890 established a protectorate over the island, which six years later became a French colony. It was thought necessary to depose Queen Ranavalona III, who had succeeded to the throne in 1883, and eventually she was deported to Algiers. The French have, however, brought about such material improvements as the construction of railroads, the irrigating of dry lands and the conserving of valuable forests, together with the extermination of many wild beasts. Now there are at least eighteen thousand miles of roads, a railroad (soon to be electrified) between the capital city, Antananarivo, and the chief port, Tamatave, and one southward from the capital to the thermal springs at Ant-



THE CHILDREN ALL LEND A HAND IN PREPARING DINNER

Although rice is the main food of the tribes of central and eastern Madagascar, those of the west rely for their vegetables more upon sweet potatoes, maize, beans, a wild plant called tavolo and cassava or manioc, from the roots of which tapioca is obtained. Their food would be very unappetizing to white folk, for their cooking-pots are always dirty.

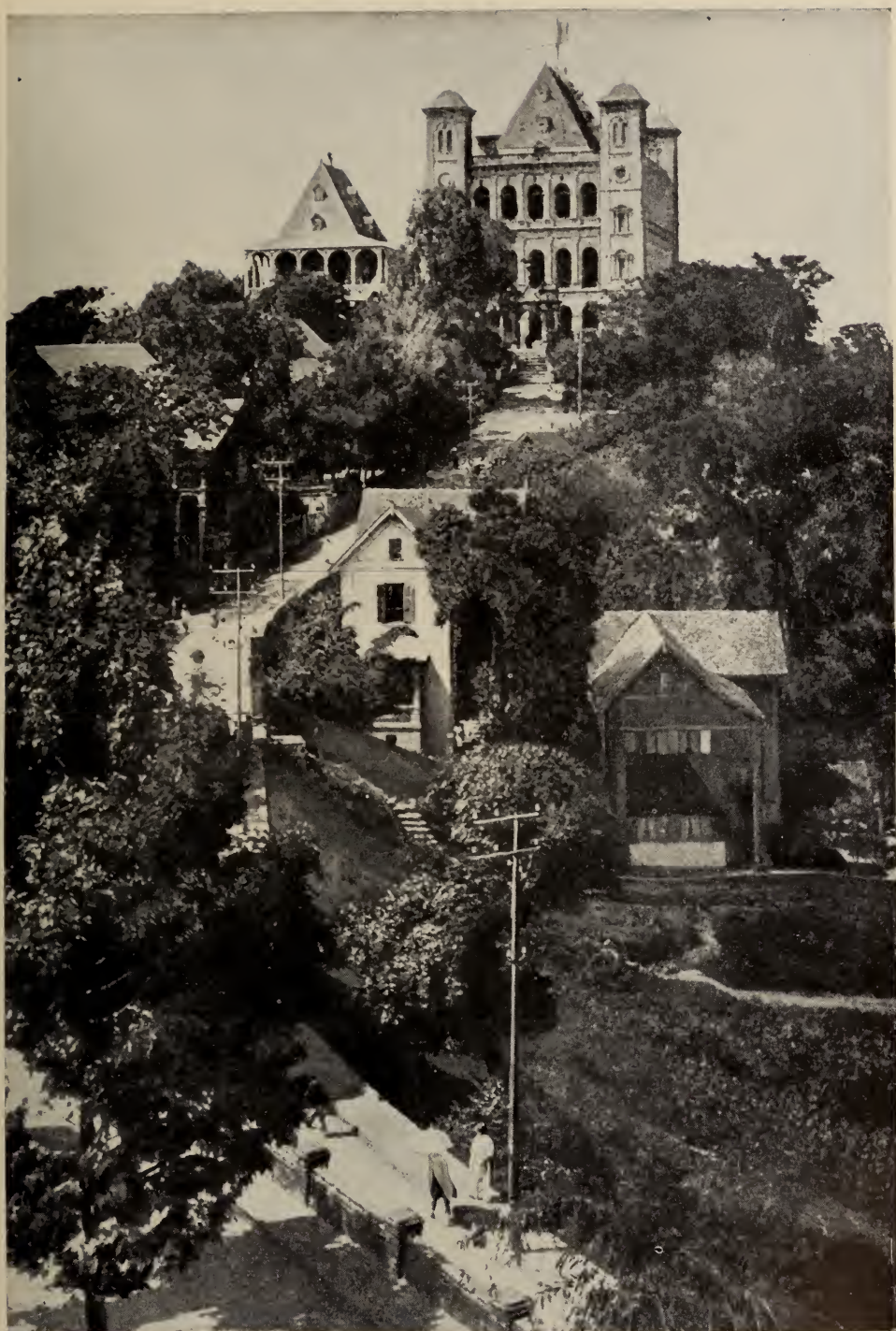


Nind

ANTANANARIVO, THE PLEASANT CAPITAL OF MADAGASCAR, ON A HILL IN THE CENTRAL PLATEAU

The capital city of Madagascar, called by the French Tananarive, is built on the sides and summit of a hill that rises abruptly from a plain 4,750 feet above the level of the sea. Here resides the governor-general and the administrative staff, together with a popu

lation of over four thousand white people, chiefly French, out of a total of somewhat over seventy thousand. Here, too, are two cathedrals, a royal palace and numerous schools where the French language is a required study. There is an agricultural school and one of medicine.



ROYAL PALACE OF THE LAST NATIVE QUEEN OF MADAGASCAR

Ranavalona III, who died in 1917, governed the island with the help of her husband, the Prime Minister, from 1883 until 1896. She was deposed by the French and deported to Algiers in 1899. Her palace, crowning a steep street in Antananarivo, is an important-looking stone structure of three stories, with a high pitched roof and a turret at each corner.



© E. N. A.

AN IMPORTANT ITEM IN THE DAY'S WORK OF A MALAGASY WOMAN

Mat-making is considered by most of the tribes of the island an important feminine accomplishment. Not only are the mats used to cover the walls and floors of their houses, but many are exported. Raffia and grasses are used, also a strong fibre found in the outer peel of a coarse sedge. The best mats are those made by the Sihanaka women.



MAKER OF HATS OF GENEROUS SIZE IN IMERINA PROVINCE

For a long time the people of Madagascar have woven straw, raffia and other plant fibres into hats, baskets and mats. The primitive appliances which this Hova hatter is using are the same as those which have been used for many generations. But since 1904 quicker methods of manufacture have been introduced by the French.

MYSTERIOUS MADAGASCAR

sirabe, besides which a new line, also to be electrified, is proposed from the east coast. The motor bus service runs on a regular schedule along the main roads to the larger towns; and through the chain of lagoons on the east side a canal has been started which is adequate for small steamers. There is wireless communication with France, and French money is used. A Bank of Madagascar was established in 1925. The capital city is laid out with wide streets and other evidences of French influence.

From the steamy coastal plains rubber and vanilla are produced, and there were, by the latest statistics, some 1,392,000 acres sown to rice, the staple native food crop. While portions of the coast are desert-like, the great riches of the island are the coastal forests, which are full of such valuable timber as ebony, as well as gums and resins. But it will be many years before the forests can be extensively opened up, for the climate is deadly to white men. Cattle have been reared since the early days.

MADAGASCAR: FACTS AND FIGURES

THE COUNTRY

A large island in the Indian Ocean off the southeast coast of Africa, from which it is separated by the Mozambique Channel; the nearest distance between island and continent is 240 miles. Estimated area, 241,094 square miles; population in 1921, 3,382,161.

GOVERNMENT

French colony since 1896; no representation in French Parliament. Governor-General assisted by nominated Council of Administration, six members of which meet once a year with Economic and Financial Delegation (24 French citizens and 24 natives—all elected) to discuss budget proposals. Each province has many native officials.

COMMERCE AND INDUSTRIES

Cattle-breeding and agriculture the chief occupations. Forests contain valuable woods and gums; resins, dyewoods and textile plants abound. Principal crops include rice, manioc, beans, vanilla, coffee, cacao, cloves, tobacco, rubber trees and mulberry trees. Livestock in 1925, 7,708,036 head. Graphite mining important; gold, precious stones, phosphates, mica and corundum also found. Chief exports: graphite, manioc, tanning bark, rice, hides, raffia fibre and beeswax. Chief imports: cotton and woolen goods, alcoholic beverages, machinery, metals, cement, kerosene and flour. Local manufacturing industries include rice-milling, sugar-grinding, meat-packing, weaving and the making of straw hats.

COMMUNICATIONS

Regular coastwise steamer service between principal ports. Railway mileage in 1926, 430; motor car service with routes covering 612 miles. Length of telegraph line in 1925, 4,787 miles; telephone line, 2,235 miles; 7 government wireless telegraph stations.

RELIGION AND EDUCATION

Many of the natives have been Christianized in central districts; about 600,000 Protestants and Roman Catholics in 1895. Protestant and

Catholic missions active. Education theoretically compulsory from 8 to 14 years. In 1925 there were 1,508 schools with 140,583 pupils. At Antananarivo there is a school of native medicine, a commercial school, a normal school and a school of agriculture.

CHIEF TOWNS

Population in 1926: Antananarivo (capital), 70,847; Antsirabe, 19,130; Majunga, 16,570; Tamatave, 15,022; Nosy-Be, 14,022; Mananjary, 12,013; and Fianarantsoa, 11,156.

ADJACENT ISLANDS

The islands of Nossi-Bé (area, 130 square miles) off the west coast of Madagascar, and St. Marie (area, 64 square miles) off the east coast are under the authority of the Governor-General of Madagascar. The archipelago of the Comoro Islands (including Mayotte, Anjouan, Grand Comore and Moheli), situated in the Mozambique Channel mid-way between Africa and Madagascar, is a French colony and is attached as a province to the general government of Madagascar. Its area is about 790 square miles, and the population was 119,305 in 1925. It exports hides, sugar, copra and vanilla; imports cotton fabrics, metals and rice.

Réunion (formerly Bourbon), about 420 miles east of Madagascar in the Indian Ocean, is a French colony. It is administered by a Governor assisted by a Privy Council, and an elective Council-General; represented in the French Parliament by a Senator and two Deputies. Area: 970 square miles; population (1926), 186,637. Chief products: sugar, rum, coffee, manioc, tapioca and vanilla. Chief imports: rice, grain and cotton goods; chief exports: sugar and rum. Railway mileage, 80; postal, telephone and telegraph systems. Three elementary schools with 14,624 pupils. Population of chief towns in 1926: St. Denis, 23,300; St. Paul, 21,643; St. Pierre, 20,479; St. Louis, 15,867. St. Paul, Amsterdam and Kerguelen, small islands in the Indian Ocean southeast of Madagascar, also belong to France, but are lacking in both population and resources.

THROUGH TROPIC FAIRYLANDS

The Malays of the Dutch East Indies

Java, Sumatra, Celebes—to mention but a few of the islands in that huge group known as the Dutch East Indies—what a fascination even these names hold! These islands possess all the glamor of the East—princes and palaces, ancient temples, dark forests, impenetrable jungles—and though Java has become one of the chief sugar, rice and rubber-producing centres of the world, large portions of the other islands remain unexplored. Nearly two million tons of sugar are annually produced and there are many sugar factories. In 1926 over 11,500 steamers and over 8,900 sailing vessels touched these shores. Most of the people are of Malayan stock, living peacefully side by side with their Dutch conquerors, but some of the tribes still remain unsubdued and comparatively unknown. This chapter deals with Java, Bali, Sumatra, Madura and Celebes. The chapter on The Men of the Blow-pipe describes the people of Borneo and the way they secure their game and ward off enemies.

THE isles of the Dutch East Indies, between the Malay Peninsula and Australia, are really the highest peaks of a vast, partly submerged volcanic mountain range. They consist of Java and Madura, Sumatra, a part of Borneo (which is dealt with in two other chapters) and Celebes, together with innumerable smaller islands—Bali and Lombok, the Moluccas, the Riau-Lingga and the Timor archipelagoes, Bangha and Billiton. Their area totals somewhat over 733,000 square miles and their combined population a little more than 51,000,000.

Java, the most important of these possessions, is a land of tropical rains, moist heat and equatorial lack of seasonal change, which makes the islands a naturalist's paradise. There are over five hundred species of orchids alone, and their perfume becomes poignant with the falling of the dew, while the evening sounds with the chirp, squeak, buzz and bumble of myriads of insects, including such strange ones as a musical worm and a bird-killing beetle. In the sun-starved jungle tangled with lantanas and silent with deep moss—that endless jungle which clothes the slopes of the extinct volcanoes—tigers and other big game prowl, elephants shrill their trumpet blasts and reptiles add their stench to the horrors of the unknown wilderness at night. But in the gardens of the beauty-loving natives and the luxurious European population, the tourist marvels at the sweetness of frangipani, the grace of

pepper trees and the curiously twisted limbs of the gigantic figs that are planted for shade. Lotuses float upon the streams and ponds, and one finds vermilion fungi, tree-ferns, huge rasamalas (liquidambar trees), while the north coast of Java is fringed with mangroves.

Throughout Java, trees and shrubs grow to immense size, and the flowers and birds are of dazzling colors. More than four hundred bright-hued birds, including the peacock, are to be found in the islands. Indeed, some of the strange reptiles, insects, birds and flowers have not yet been given names. Botanists from all over the world come to Chibodas.

Many fruits grow plentifully. There are, for instance, over seven hundred varieties of bananas, ranging from little ones the size of a man's finger to those as long as his arm. The Javanese feed the big ones to their horses to make the animals have glossy coats. Mangoes, coconuts, pineapples and pears thrive equally.

The majority of the islands belong to the Netherlands. Of these, Java, which lies in the track of most of the winds of the Pacific and the Indian oceans, contains nearly four-fifths of the entire population of the Dutch East Indies. Batavia is the capital city.

Though Java does not look large on the map, it is actually nearly four times the size of the Netherlands. The population consists mainly of Javanese, though there are many Europeans, chiefly Dutch, and a half-million Chinese, besides Arabs.



Kurkdjian

ARTISTIC WORKER IN BRASS IN THE TOWN OF SURABAYA

The Javanese are skillful workers in metal and produce very beautiful objects with their simple tools. This man, who dwells in the chief town of east Java, is chiseling an intricate pattern on a brass bowl, which he steadies with his bare foot. On a succeeding page we can see what marvels his kinsmen can fashion in gold.

Until the Arab invasion of the fifteenth century, the Hindus dominated the history of the island. The Portuguese came in 1520 and the Dutch toward the end of the sixteenth century, both in quest of the spice trade. The first Dutch settlement was that of a commercial company which for two centuries mishandled native affairs. They made the Malays virtual slaves, until famine and pestilence resulted. But in 1798 the Dutch government took possession, and to-day Java is excellently governed.

Unexplored regions have been opened up and a plantation system installed which employs native labor in wholesale quantities. The natives, who live in farm-villages, go to work in gangs.

In addition to the sugar, coffee, rice and other native plants of commercial value, tea, rubber and other new crops have been introduced, and well-drained, improved roads and free harbors have been built to facilitate trade and commerce. The government has taken over the handling of opium, which was formerly handled by the Chinese and is still to some extent smuggled in. It has also taken over the pawn-shops by way of rescuing the docile natives from the Chinese usurers. The Javanese render all officials, whether Dutch or native, the courtesy of the pose known as the "dodok," by which they sit on their heels with hands folded before them. The chief difficulty with them arose in 1825 when a native prince,

THROUGH TROPIC FAIRYLANDS

Dipa Negarā, so resisted Dutch rule that it took five years to subdue him and his followers.

The Dutch Governor-General, dwelling in luxury at Batavia and the country capital, Buitenzorg, holds sovereignty over what is probably the most densely populated land mass—India not excepted—in the world to-day. With his council he has enormous power, though he exerts it in part through native nobles, who deal directly with the people. Latterly, however, a People's Council has been established as a first step toward self-government. The Dutch officials like Java, with its gorgeous scenery, and even when they retire from public life make the East Indies their home, and so take a personal interest in the administration of the islands which compose this group.

The larger plantations are everywhere cultivated and harvested under Dutch supervision. The well drained mountain-sides are covered with tea bushes laid out symmetrically by civil engineers, who have planned for them a model irrigation system. One of the largest tea plants in the world may be visited in the saddle between the two extinct volcanoes, Mount Salak and Mount Gede. A variety of plants is grown but the differing kinds of tea are due less to that fact than to the time and mode of the picking of the leaves. The tea factories connected with these plantations are clean buildings with corrugated iron roofs and walls of airy woven bamboo, in which modern machinery is employed.

A network of splendid railways, which has been made by European engineers,



Lewis

BEAUTIFUL HANDICRAFT WE HAVE LEARNED FROM JAVANESE

In artistic production the women of Java are the equals of the men. They weave the cloth to make their "sarongs," and then dye it in a manner all their own by a slow hand process requiring infinite patience. The results are so beautiful that in recent years this method of dyeing, called "batik" work, has become widely popular.

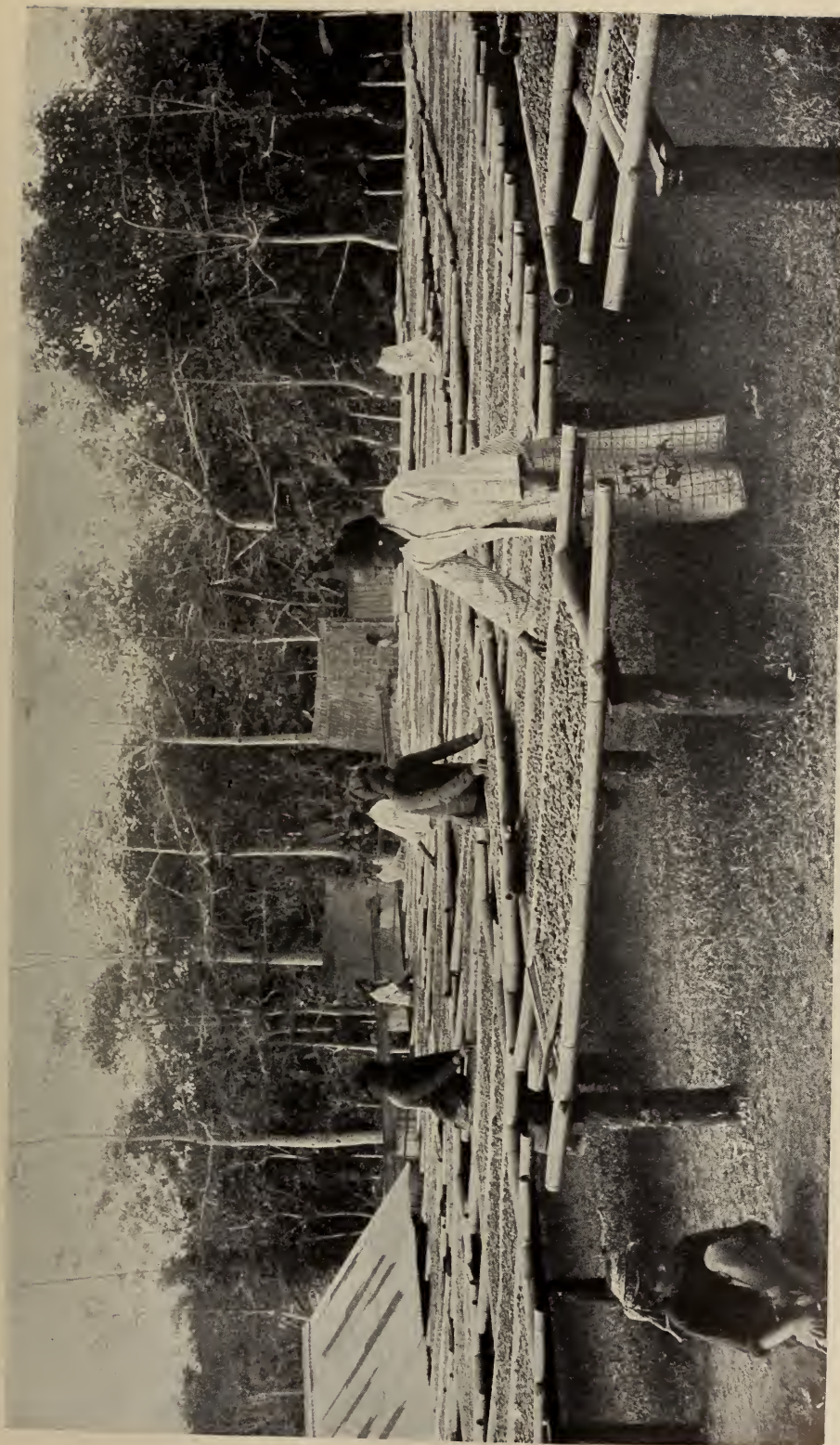


Lewis

MADURESE WOMEN WHO HAVE COME TO JAVA TO WORK IN A COFFEE WAREHOUSE

Little Madura Island, off the northeast coast of Java, is not very productive, but its inhabitants are hard workers. They go over to Java to help in the plantations and to sort the coffee berries. The fruit of the coffee tree is rather like a cherry, so that is what it is called. But inside

it there are two seeds—coffee “beans.” The “cherry” growing at the tip of a twig sometimes has only one seed, which is then round, and so is called a “peaberry.” These Madurese coolies are sorting the beans, which means that they examine each one separately.

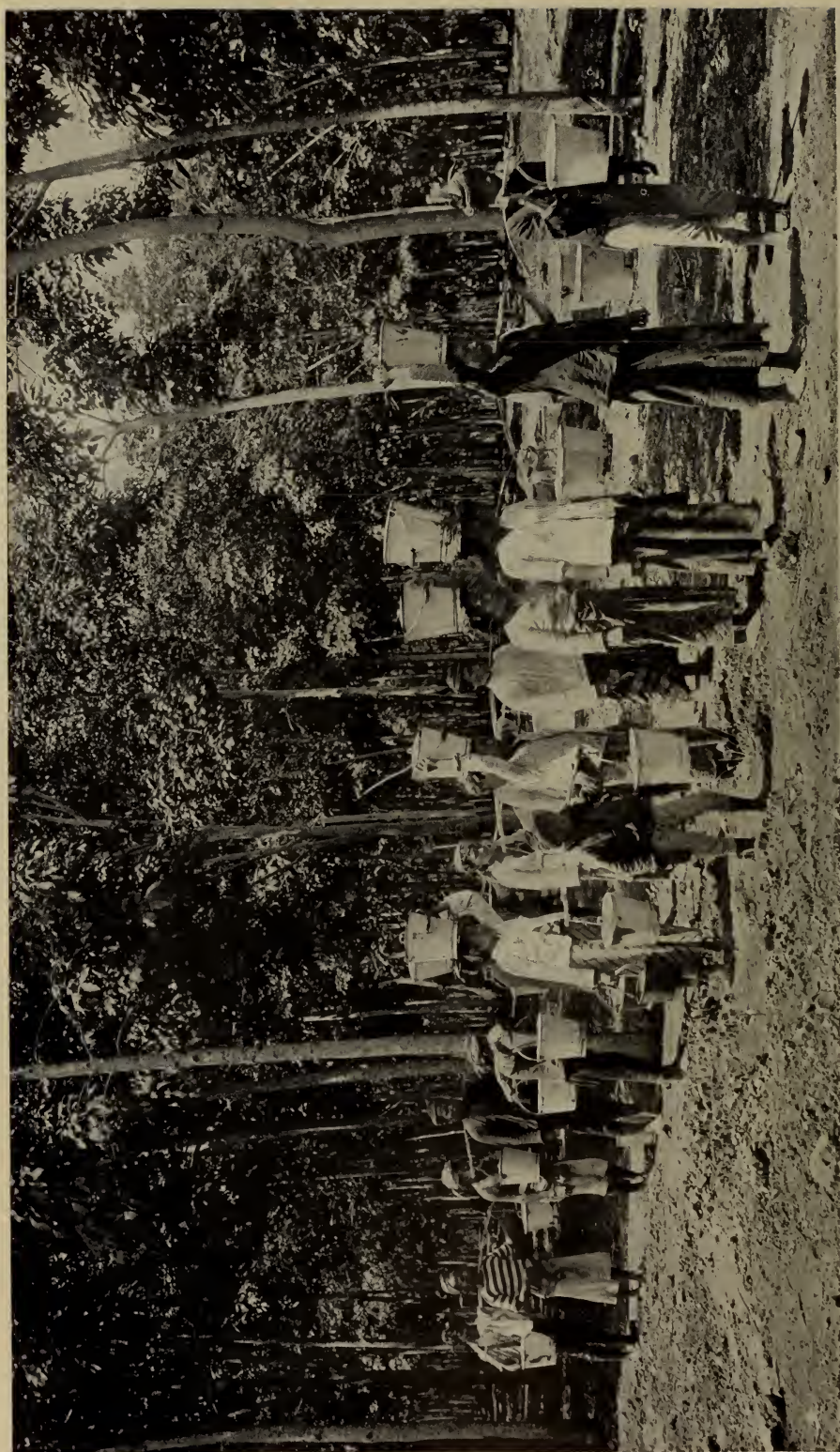


COCOA BEANS SPREAD ON BAMBOO TRESTLES SOON DRY IN THE RAYS OF TROPICAL JAVA'S SUN

Lewis

In the district of southwest Java known as the Preanger Regency we may see many a scene like this—gaily dressed coolies turning the cocoa beans that are drying in the sun. Java is a fruitful island; it has an exceedingly fertile soil and an excellent climate with plenty of rainfall,

so that every tropical plant yields abundantly. Rice, sugar, rubber, coffee, tobacco and cocoa, to name but a few, are among the products of this "Garden of the East," but though so much land is cultivated, there is much unexplored forest in the interior.



Lewis

NEARING THE END OF THEIR WORK: COOLIES CARRYING THE DAY'S YIELD OF RUBBER TO THE FACTORY

Rubber is grown in Java. The precious latex, the milky sap of the trees, is obtained by making cuts spirally around the trunks and hanging pails beneath them. By the latest figures, about 56,000 tons of Java rubber are annually obtained. The labor is performed, under Dutch

foremen, by the Javanese, who are industrious little people. This procession wending its way among the young trees is bringing to the factory brimming pails of latex. The women carry them upon their heads, but the men hang one at either end of a pole across their shoulders.



Lewis

OLD AND YOUNG SPEND LONG DAYS IN THE PADDY FIELDS

Rice is grown in Java, where it is summer all the year around, at any time of the year. One field is being harvested while the next is being sown; in another the paddy stands half grown, and in yet a fourth oxen wade knee-deep in watery mud, drawing wooden plows. Thus a family in possession of wide paddy fields must needs be hardworking.

links up the plantations and towns. Wide roads, such as are seldom found in the East, make motoring delightful.

The natives, although small, are graceful, strong and well built. They are a branch of the Malay race and are intelligent and extremely polite. As the cultivated part of Java, which occupies more than one-third of the whole island, is covered with vast plantations of rice, coffee, sugar-cane, corn, cassava, sweet potatoes, ground-nuts, soya beans, tobacco and lesser crops such as the Peruvian bark from which quinine is produced, the natives are nearly all agriculturists. They live in villages, or kampongs, and each village may contain from thirty to

five hundred inhabitants, who live happily and peacefully tilling the land. They are generally paid a small but sufficient wage by the Dutch. The greater part of the soil is claimed as government property, and where there are private estates, these are owned chiefly by Europeans or Chinese. In addition, some lands are hired from native princes or from self-governing communities.

The villages are often surrounded by groves of palms, which sometimes quite hide the low huts. The houses are built of teak or bamboo, with thatched roofs, so that the native has nothing to fear from earthquakes, which in these volcanic regions are frequent. If his house gets



Smithsonian Institution

WINDOWLESS DWELLING OF THE HEADMAN OF A PAGET VILLAGE

South Paget, or Nassau, Island is the most southerly of an archipelago that lies off the southwest coast of Sumatra. The people who dwell here are very primitive and are believed to be not Malays, but descendants of aboriginal Polynesians. The jungle lies at the very doors of this pile-supported dwelling. A causeway leads to the door.

shaken down he soon builds a new one. Often each hut has a flower garden in front of it, which adds considerably to its picturesque appearance. Sometimes there are Chinese coolies in the villages, too, but they live by themselves. The beat of a drum made of a hollow log marks the passing hours, or warns the folk in case of an alarm.

The house of the better class native is made up of three separate structures which are often joined by corridors. There is the "oman," which contains the quarters of the family; then comes the "pandopo," where guests are received; and lastly the "pringitan," in which are the guests' sleeping quarters. These houses have no windows and no chimneys, but this does not really inconvenience the owners, as the Javanese pass a great deal of their time out of doors.

The poorer people live in huts made of bamboo, wood and rushes bound together with rattans. In western Java the floor is built some distance above the ground, so that cattle can be stabled underneath.

One of the best characteristics of the Javanese is his extreme affection for his

family, which is generally a large one. The children have a happy time, as their fathers and mothers make much of them and seldom punish them. Little boys, with only a necklace for clothing, drive the tame buffaloes to their daily mud bath, or hunt for crickets, which they train to fight in imitation of their father's highly prized fighting cocks.

The Javanese marry at an early age, but only members of the rich or the upper classes have more than one wife. A wedding is an excuse for holding a feast and nearly everyone in the village gives some small gift of food. The dancing, feasting and merrymaking sometimes continue for days.

The chief food of the Javanese is rice, the cultivation of which is a laborious undertaking, though the climatic conditions are favorable. The people often work all day knee-deep in mud, which gives off evil gases and is the home of fierce insects. When they gather the harvest they are forced to work for days in a stooping position, cutting off the ears by hand one by one, for such an implement as a scythe is unknown.



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HOMES OF A FIERCE MOHAMMEDAN PEOPLE OF NORTH SUMATRA

The Achinese, who built these tall houses of two stories, are yet another tribe dwelling in the huge island of Sumatra. They are Malays with a considerable admixture of Arab blood. Now Arabs are, above all, fighting men and it is not surprising to learn that the Achinese give far more trouble to their Dutch suzerians than do the Javanese.



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MARVELOUS CRAFTSMANSHIP OF A SUMATRAN CANNIBAL TRIBE

The Bataks, or Battas, of north-central Sumatra are neither Malays nor Polynesians; they are Indonesians. Their life is a curious mixture of savagery and culture, for though they can fashion a dwelling as wonderful as this, though they are metal-workers and agriculturists and can even read and write, incredibly, many are still cannibals.



KURDJIAN

A SULTAN OF GOWA, at the southern tip of the four-fingered island of Celebes, wears a semi-European dress and has a retinue of but three body-guards. Of these, one shelters him beneath a pyong or state umbrella, the number of rings on which indicates the rank of the official. The retainer in epaulettes could defend him with the sword if need be.



GALLOWAY

THE UNGAINLY CARABAO, or water buffalo, is the chief domestic animal of the Dutch East Indies, as it is of the Philippines. This one, snatching a mouthful of grass from the roadside as it goes, carries the small son of its master upon its back, while the master himself carries the long, unwieldy plough—a curiously carved and painted affair.

THROUGH TROPIC FAIRYLANDS

The Javanese love hunting and fishing. Sometimes a hunter may be so fortunate as to kill a tiger, for which he will receive a government bounty. He may sell the skin, but first of all he will pull out the teeth, claws and whiskers, which are considered to be powerful aids against evil spirits.

Some tigers may not be killed, because the people believe them to be friends who watch over their interests and frighten away other tigers. They think that the spirit of an ancestor resides in such a tiger. Wild pigs and deer are often to be seen; reptiles, including crocodiles, infest the swamps; and edible fish swarm in the rivers and coastal waters. With these sources of food at their disposal, the Javanese need not work hard to obtain a living, although the Dutch are gradually teaching them scientific methods.

A Race of Spendthrifts

However, they prefer their slow ancient implements, and the Dutch do not mind their doing so, as it gives work to everyone and keeps them happily employed. The Javanese never save money, they squander it on festivals and feasts, which they hold at every opportunity.

They are Mohammedans, but they still observe some of the old Hindu rites. The women and children are especially devout, and frequently go to the temples to pray and to take offerings to the priests.

Batavia is by far the most important town in the East Indies. It is situated in one of the biggest sugar, rice and rubber-producing centres of the world. The city, with its white stucco houses roofed with red tile, is quite modern; there are excellent railways, nearly three thousand miles of them, running hence to all parts of the island, and a telegraph system has been in use since 1858. Native police direct the passage of motor cars, and there are excellent schools where the courteous native children are educated by European and native teachers.

A Harbor Scented with Spices

Before the glittering harbor of Batavia (Tandjong Priok) is reached, we can

smell the almost overpowering scent of spices that is wafted from the island. A train takes us from the harbor to the best part of the town, where there are good hotels, telephones and other modern comforts. Fine houses and offices, built in the Dutch style, are to be seen. There are well laid out squares and gardens, and wide roads, where Europeans in white, and Chinese, Malays and Javanese in their colored costumes add to the scene.

Many of the Javanese women living in the larger towns wear European dress, as do some of the men. The usual garment of the women, however, is the sarong—a wide piece of cloth fastened under the armpits and reaching nearly to the ground. When in public they also wear a short coat, with a scarf draped over the shoulders or tied around the waist. The women fasten their hair in a tight knot with pins; the men wear little turbans. Rings and bracelets are worn by both men and women, and the children frequently have anklets.

The old Dutch buildings, some of which were built in the seventeenth century, are well worth seeing. The city church is over two hundred years old, and has a fine pulpit and carvings. The imposing town hall dates from 1710. The Java Bank is housed in a fine modern building. A wide canal runs through the principal street and in it the Javanese bathe night and morning. The tourist is surprised to find modern Batavia (the Dutch *Weltevreden*) one vast park checked off in mammoth public squares and gardens perfumed with orchids. The Dutch residents dress for dinner and attend concerts and club affairs and have books and paintings and band concerts.

Banquets of Batavia

In old Batavia one should see the sidewalk bazaars and if possible attend a native banquet, at which rice is eaten with curry, chicken, green peppers, fried fish and fried bananas and followed by wonderful coffee. By the Tiger Canal is the Chinese quarter, where live some thirty thousand Chinese—shopkeepers, hawkers and laborers—and here the buildings



Kurkdjian

CRAFTSMEN TURNING WOOD IN AN OPEN-AIR JAVANESE WORKSHOP

These busy workmen are making wooden knobs and handles like the one in the centre foreground. The man at the wooden lathe holds in his right hand a bow the string of which is twisted around a piece of wood. By drawing the bow backward and forward he makes the wood revolve as he shapes one end with the tool in his left hand.

and bazaars are Chinese joss houses, or temples, with their idols.

After Batavia, Semarang and Surabaya are the chief towns. Surabaya is linked up east and west by good railways, and is the headquarters of the military authorities. Here are the old, half-ruined fortifications which were built years ago by the Dutch.

In the centre of Java are two strange states which are called Jokja and Solo—short for Djokjakarta and Surakarta. These are governed by a sultan and king respectively, and the old medieval forms of courtesy and court etiquette are still practiced as they were hundreds of years ago. Time seems to have stood still here. The court nobles still wear their gorgeous uniforms and state trappings, and the palaces and buildings look like those described in fairy tales.

Although the king and sultan still reign, they themselves have to obey the Dutch

officials and are rulers more in name than in reality.

At Jokja there are over a thousand temples, and strangely carved ruins add to the general picturesqueness. Here the chief industry is the weaving and dyeing of the beautiful cloth that is famous in Java. The cloth is woven without a loom and the wonderful patterns are tediously made by dyeing the cloth after the patterns have been covered with a wax that keeps out the dye. The work is known as "batik."

At Boro Budur, in the centre of the island, are marvelous ruins dating back to the ninth century—relics of an ancient Hindu-Buddhist civilization that existed before the Arabs swept through the land in the fifteenth century. The ruins cover a small hill and are pyramidal in shape, mounting up the hillside in a series of terraces. There are five terraces and on them are the carvings that have made



LEWIS

THEIR TRAILING SARONGS, no less than their good features, show that these two young people of Bali are of high caste and that they are the aristocrats of their island. They live luxuriously in their richly decorated dwelling, waited upon by large retinues. The Balinese are of the same race as the Javanese, but they are of finer physique and taller.



LEWIS

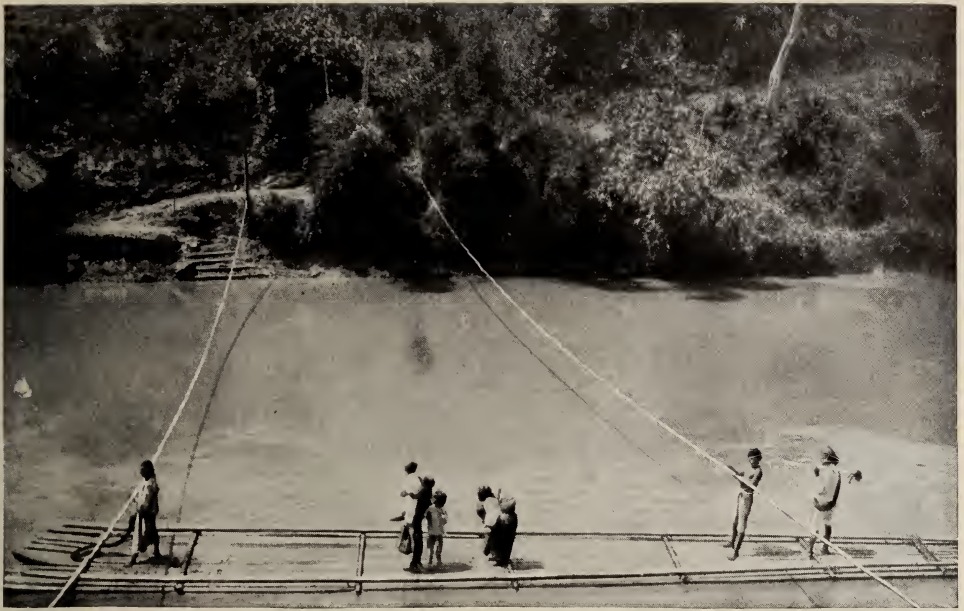
ON BALI, a mountainous and volcanic island of the Sunda group, in the tail of the Malay Archipelago, rice is the leading crop. The grain is stored in thatched and painted wooden paddy-holders which stand by the roadsides. The one above rests on a pedestal of basalt, a volcanic rock of which the island is chiefly composed. The woman has a basket of rice.



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A PIECE OF SUMATRAN WILDERNESS SOON TO BE TAMED

Sumatra, an island of over 163,000 square miles in area, is not so well developed as Java, and its mountain slopes and coastal plains are still covered with impenetrable, primeval forests. It has great possibilities, however, and in time will probably yield as much wealth as Java. This tangle of tree and shrub, for instance, will soon be a tobacco estate.



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JAVANESE INGENUITY INVENTED THIS BAMBOO FERRY BOAT

Java's many rivers are too shallow to be of much use for navigation, but some of them are wide and there are few bridges. Instead, two ropes of twisted cane are slung across from shore to shore, and by hauling upon these a couple of men can draw their bamboo raft across the stream. It is a land where human labor is abundant.



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WONDERFUL STONE CARVINGS OF AN OLD HINDU TEMPLE

Not far from Buleleng, the chief town of Bali Island, we find this elaborately carved Hindu temple, which was built many years ago. At Boro Budur in Java, which was once a Hindu-Buddhist island, an amazing temple, centuries old, has been discovered; it is considered an even more stupendous piece of work than the Great Pyramid of Egypt.



LEWIS

IN THE PADDY FIELDS there is always work to be done—ploughing, sowing, planting out and reaping. This Javanese woman has come to that last stage in the year's work, and her labor is more exacting than the harvesting of more civilized people, for she has to cut every stem separately with her knife. Now she is carrying the sheaves home for storage.



LEWIS

BY A TEMPLE, time-worn and overgrown with moss and lichen, two men of Bali talk together, but not as equal to equal. He of the trailing sarong is high caste, the other low. Bali and the neighboring island of Lombok are both Hindu in religion, but have animal life utterly different. That of the former is Asiatic, that of the latter Australasian.



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HOW JUSTICE IS ADMINISTERED IN DJOKJAKARTA, A CURIOUS NATIVE SULTANATE OF SOUTHERN JAVA

The Sultan of Djokjakarta dwells in great pomp in a wonderful palace, or "kraton," reached by underground passages. He is held in veneration by his subjects, and wherever he goes or whatever he does is attended with the most elaborate ceremonial. Nevertheless, he has not much power even over the million souls who dwell in the fifty-six square miles of his domain, because he is under the guidance of a Dutch resident. While the courts of justice are presided over chiefly by natives, as we can see above, white men sometimes supervise them.

Boro Budur so famous. It has been estimated that there are three miles of carvings. The building of the temple must have been an even more stupendous task than the erection of the Great Pyramid in Egypt.

To the east of Java is a chain of islands, of which each one possesses strange and wonderful scenery. The largest and most important is the volcanic island of Bali, which is peopled by natives similar to those of Java, but bigger, stronger and more primitive. Here the natives, who are Hindus, not Mohammedans, are more religious, especially the women and children, who spend a great deal of their time praying and making offerings of spice, scent and flowers at the little temple courts seen all over the island.

Brass Drums and Fighting-cocks

It is a wonderful sight to see the women going to the temple with baskets of flowers balanced on their heads. Everything is peaceful, save when the brass drums resound. The men, in elaborate attire with flowers in their hair, bear their fighting-cocks against their chests or in ornate gold cages.

The villages of Bali, unlike those of Java, are enclosed by long, low mud walls, inside which the children play happily all day long. In the south are beautiful rice fields which rise up the hillsides in terraces. These terraces are very beautiful in Java, but in Bali they are even more wonderful. Among the most interesting sights to be seen in the island are the graceful dances performed by the young girls. The dancers are dressed like little goddesses and go through many elaborate poses, doubtless depicting the story of some Hindu god.

Bali is separated by a narrow but deep channel from the neighboring island of Lombok, yet the animal and vegetable life of the two islands is entirely different. The wild life of Bali is like that of Asia, but Lombok, with its marsupials and white cockatoos, resembles Australia. It really seems that the narrow channel between these two islands definitely divides one continent from the other.

A Vast Unexplored Region

Sumatra, astride the equator, is three times as large as Java and thirteen times the size of the Netherlands, but it is composed largely of unexplored jungles. The civilization of this island is probably of Hindu origin. There are Sanskrit words in the various native languages. And as in Java, the Mohammedans, then the Dutch came, and Dutch sovereignty has gradually been extended. The British acquired a foothold in Sumatra in 1685, but vacated in accordance with a treaty signed in 1824.

A vast range of mountains called the Barisans runs down its entire length like a spine. Although there are many rivers, they are too small or too rapid to be of any use. Huge lakes and swamps, containing crocodiles and crabs; dangerous and unexplored jungles inhabited by tigers and savages, all combine to make Sumatra a mysterious land.

The climate is similar to that of Java, but hotter. The inhabitants, the Achinese as they are called, are violent, fierce, cruel and quick to revenge an insult; and while they work better than the Javanese, they give the Dutch a great deal of trouble and have never really been subdued. They are Mohammedan, but much stricter ones than the Javanese, owing to their Arab blood. Some of them make the long journey to Mecca and on their return they are greatly honored by their relatives and friends.

Like the Javanese, the Achinese have no idea of the value of money and squander their earnings on gambling, cock fighting and other amusements. They are also addicted to the smoking of hemp, a deadly drug which sometimes produces madness; then the smoker seizes a native sword and runs "amok," killing anyone in his path. When this happens, the frightened people shut themselves up in their houses, while the braver men hunt down the madman.

Medan and the Rubber Plantations

Padang, the capital, is the chief town. Here we may see the results of European



LEWIS

A YOUNG BALINESE WOMAN is usually quite attractive, with her clear golden skin, black hair and amiable face and her pleasant plumpness. When she is a member of a royal family these attractions are enhanced by jeweled combs and earrings and attire of rainbow silk brocade. Like the Chinese aristocrat, she does not cut the nails of her left hand.



LEWIS

A CONSIDERABLE PERSONAGE, this Balinese chieftain displays both his wealth and his rank upon his person. Over his right shoulder we can see the jeweled hilt of his kris, a Malayan dagger that he wears in the back of his sash. The cultivated Balinese, like the Javanese, are an innately æsthetic people and delight in the vivid hues of the tropics.



Lewis

SEMI-DETACHED NATIVE DWELLINGS ON THE FRINGE
 Macassar, the chief town of the Celebes and one of the principal settlements in the East Indies, is spotlessly clean—as we might expect of a Dutch town—not only in the European quarter around the harbor, but even in the native quarter farther inland. The bamboo houses are

OF THE ORDERLY TOWN OF MACASSAR IN CELEBES
 neatly built and well thatched, and before each is a trim compound shaded by trees. However, as in the rainy season strong winds blow continuously from the west, it is not uncommon in south Celebes to find a native-built village in which not one house stands up straight.



American Field Museum, Chicago

A FISHERMAN OF CERAM SHOWS HOW HE USES HIS WEAPON WHEN GLIDING OVER THE TROPIC SEA

In the village of Teluti, on the south coast of the island of Ceram, the people live almost entirely on sago, the produce of a palm tree, and fish. In their dug-out canoes, steadied on each side by an outrigger made from a palm-frond, they paddle out into the bay and drop their curious cane fish-traps into the shallow water. The traps are very like the one from neighboring New Guinea, shown elsewhere. In deeper water, when the sea is calm, they fish with bows and arrows. This man is just illustrating how he stands when aiming at his prey.



LEWIS

THE JAVANESE, with their expressive features, their punctilious courtesy and high intelligence, are termed "the flowers of the Malay race." For when, in the late fifteenth century, Mohammedanism became the religion of all the East India Islands except Bali and Lombok, it superseded a Hindu-Buddhist culture of unknown antiquity. That the older civilization was one more highly developed than that which followed is pretty well proven by the character of the ruins of temples, tombs and cities that lie buried in the jungle.



LEWIS

THIS BALI DANCER is but one of many young girls still slim and supple who perform the theatrical dances of the East Indies. The native chieftains have theatrical troupes, some of whom appear in just such brocaded silks, with collar, belt and armlets of beaten gold set with jewels. Around her neck this little girl, who may be a member of the royal family, wears a chain hung with English sovereigns, a favorite form of adornment in the South Sea Islands. Her finger rings are incredibly heavy, her earrings of a size to be uncomfortable.



Lewis

STRANGE PRODUCT OF A BATAVIAN FACTORY

This little Madurese coolie is carrying a basket of kapok fibre from the drying ground to the packing shed. The soft white fluff is obtained from the seeds of the tall kapok tree, and is used to stuff pillows and cushions.

occupation, though most of the island is still undeveloped. Medan is a new town, with cool, white buildings, and is surrounded by plantations where the natives and Chinese coolies work under the direction of Dutch overseers.

The rubber plantations are interesting. The rubber is procured from a beautiful tree, with strong, shiny leaves, and the trees stand in rows in gloomy forests where the sun can hardly penetrate. When the latex, or sap, is rising the trunks are notched, and cups are hung

around the trunks in order to catch the thick, milky juice that oozes out. This is poured into cans and taken away to be prepared.

South of Achin, the northern part of Sumatra, live other Malay tribes, such as the Bataks, Korinchis and Jambis. The Bataks are a race apart, despised by the Mohammedans, especially the Javanese, for they worship the souls of their ancestors; their priests and priestesses dance with snakes and practice witchcraft; and the people are cannibals. Until recently, it is said, they actually sold human flesh in the market places. This has gradually been stopped, partly by the missionaries of various nations. Some of these unfortunate people are lepers and are confined to their own compounds and villages and never allowed to pass beyond a certain boundary. These unfortunate people live in a far better way than do the healthy Bataks, who are often very dirty, for the lepers wash their clothes frequently, and burn all rubbish.

The houses of the Bataks are built on poles, with high roofs, and sometimes having carved snakes over them to guard the owners. Little wooden staircases serve as entrances. The buildings are quite big, and often as many as eight families live together. One fire, which is never allowed to go out, is used for cooking by all of them, but each family has its own room.

The men and women wear cloth dyed with the indigo plant, and their fingers are always stained with this dye. Dogs and pigs run about in this village and act as scavengers. The pigs especially show that the people are not Mohammedans, as these animals are considered unclean by

THROUGH TROPIC FAIRYLANDS

the members of that religion. Here, as in Java and other parts of Sumatra, the people are fond of dancing and give numerous displays. Nearly all the Bataks, as well as most of the other peoples of Sumatra, are farmers. The harrowing and plowing are done by buffaloes, who seem to understand the work. They pull the harrow between the young rice plants and never trample even one underfoot.

It looks somewhat like a starfish with an arm torn off the side that corresponds to the west coast of the island.

Here, perhaps, the scenery of the East Indies is to be seen at its best. Gorges and precipices abound in the south, and, when the walls of these project, a wonderful mass of vegetation, starred with gorgeous flowers, hangs down like a natural curtain. Most of the country is cov-



© Ernest Peterffy

COOLIES AT WORK ON THE COALING STATION IN MACASSAR HARBOR

The Dutch island of Celebes, compared to a star-fish because of its four protruding limbs, is separated from Borneo on the west by Macassar Strait. Macassar on the southwest coast is the chief town and ranks next to Batavia as a Dutch port; it has a lively trade, and its harbor possesses a government coaling station and two well ordered landing quays.

Little bamboo houses on poles may be seen under a palm or a banana grove near the fields. From these shelters lines, to which black tassels or bits of tin are attached, are stretched over the fields. The children manipulate the lines from the little lookout huts and so keep the beautiful but destructive paddy-bird away from their father's rice fields.

One of the four large Sunda Islands is Celebes, which is separated from the island of Borneo by the famous Strait of Macassar. Its outline is irregular and

ered with almost impenetrable forests, which we can cross only by the hardly noticeable paths leading to tiny villages.

A curious feature about Celebes is that it possesses animals and birds which are not found on any of the other islands. Only one hundred and sixty kinds of birds are found, but ninety of these do not exist anywhere else in the East Indies. The animals also are peculiar to the island, and even several species of its butterflies are unique.

Around the coast the natives dive for



LEWIS

THE VILLAGERS of Bali display the same love of gorgeous color as the high-caste Balinese of that brilliant, jungle-forested land. Caste is a very real thing in Bali, which has retained the older religion of the Hindus; though in Java, from which the island is separated by only a narrow strait, the people are Mohammedans and caste as such is disregarded.



LEWIS

THIS JAVANESE COUPLE from the east end of the island is typical of the East Indian branch of the Malay race, an amiable, agricultural people, unlike the indolent natives of Malay in their capacity for hard work. They are extremely polite. The woman wears the native "sarong" and a sash; the man has a jacket as well and a strip of cloth worn turbanwise.

THROUGH TROPIC FAIRYLANDS

pearls and catch turtles for a living, but the products which come from the forests are the most important. The three principal Malayan tribes are the Macassars, the Mandars and the Bugis. The Macassars are fine men, well built and strong, and they love running, wrestling and hunting.

To the east of Celebes is that archipelago known as the Moluccas, which contains several large islands. There are Malay settlements around the coast of one of them, Buru, but the interior, which is largely dense forest, is peopled by strange tribes. These, though they are possibly of Papuan origin, are a yellowish-brown in color, of slight build and usually below medium height. They live in scattered communities and are almost untouched by civilization. Ceram, to the east of Buru, is a larger and more densely popu-

lated island, with Malay tribes on the coast and savage head-hunters farther inland.

We leave the Dutch East Indies with reluctance. Europeans who have dwelt there never forget the dignified inhabitants, with their fine faces which still bear the signs of the ancient culture that was theirs hundreds of years before the Arab or European conquests. Neither can they ever forget the beauty of the islands, which are lovely beyond words—an earthly paradise to the visiting tourist.

The Dutch East Indies have an extensive educational system which begins with the government primary schools, where instruction is given in the Dutch language to Europeans, Chinese and natives. There are also Dutch high schools, besides public schools in which the native tongue is used.

DUTCH EAST INDIES: FACTS AND FIGURES

THE COUNTRY

A group of islands in the Malay Archipelago lying along the equator between the North Pacific Ocean and the Indian Ocean. The total area is approximately 733,649 square miles and the population 51,717,688 (1926 estimate). (This includes Dutch Borneo; for Borneo Facts and Figures, see page 272.)

Area and population (estimates for 1926) of principal groups of islands are as follows: Java and Madura, 50,749 square miles, 36,901,643; Sumatra, 163,138 square miles, 5,994,859; Riau-Lingga Archipelago, 12,506 square miles, 224,145; Bangha, 4,549 square miles, 161,313; Billiton, 1,872 square miles, 65,584; Celebes and Menado, 72,679 square miles, 3,438,664; Bali and Lombok, 4,072 square miles, 1,544,952; Molucca Islands, 30,168 square miles, 630,190; Dutch New Guinea, 160,692 square miles, 195,460 (1920); Timor Archipelago, 24,819 square miles, 1,143,626.

GOVERNMENT

The superior administration and executive authority of the Dutch East Indies rests with a Governor-General and is exercised through a hierarchy of native officials; advisory council of 5 members; legislative power shared by Governor-General and Volksraad, the members of which are appointed by the government or elected by local councils.

COMMERCE AND INDUSTRIES

Rich natural resources, largely undeveloped except in Java. Agriculture constitutes the chief occupation of the bulk of the population, partly controlled by foreign agricultural com-

panies. Chief products: sugar, rubber, coffee, tea, rice, corn, cassava, tobacco, pepper, copra, kapok and fruits of all kinds. Third in supplying coffee for world trade; Java and Madura third in world production of sugar. Native industries include preparation of agricultural and forest products for export, weaving, dyeing and metal work. Tin is mined in Bangha, Billiton and Riau; coal in Java and Sumatra; petroleum found in Java and Sumatra.

COMMUNICATIONS

Communication is chiefly by water. Railway mileage in 1927, 4,507. Government-owned telegraph in 1926, 20,721 miles; telephone, 171,824 miles; 26 radio stations were in operation in 1927. Regular air mail service.

RELIGION AND EDUCATION

Entire religious liberty; 9 Protestant and Catholic missions; bulk of natives Mohammedans. Government and private elementary schools for Europeans, Chinese and natives; instruction in Dutch and vernacular. In 1928 there were 17,506 elementary schools with 1,517,217 pupils. Professional, trade and technical training schools; normal schools for Europeans, Chinese and natives.

CHIEF TOWNS

Batavia (capital of Java), 305,901; Surabaya (Java), 249,674; Semarang (Java), 146,509; Surakarta (Java), 156,162; Bandoeng (Java), 137,050; Djokjakarta (Java), 109,932; Macassar (Celebes), 53,590; Palembang (Sumatra), 60,783; Medan (Sumatra), 45,248

BORNEO THE ISLE OF SUMMER

Its Forest Folk and Head-hunting Dayaks

To the extent that civilization demands a supply of rubber, every rubber-producing country is of interest. Borneo is one such country. It is a land of tropical jungle in which the mammoth orang-utan and the gibbon, the python and the crocodile make travel precarious. Until comparatively recent times, Borneo was regarded as the home of the "wild men"—the head-hunting Dayaks. But the old days of piracy and head-hunting have practically passed, and the rule of the British and the Dutch, and of the British raja of the independent state of Sarawak, has brought peace and prosperity to this storehouse of nature's treasures.

BORNEO is one of the two or three largest islands in the world. A part of the Malay Archipelago, it lies north of Java in the China Sea. As it rests on a submarine plateau, its coastal waters are not deep and there are few neighboring small islands, though Banguey and Labuan lie off the northwest coast and the Karimatas off the southwest.

The mainland rises in a hump of huge mountains densely forested, with some sixty kinds of timber which is extremely valuable but for the most part almost hopelessly inaccessible. Ferns, vines and exotic wild flowers add to the impenetrability of a jungle nourished by tropic warmth and bounteous rainfall. In Sarawak, in northwest Borneo, which is hemmed between the mountains and the sea, there is all of two hundred inches of rainfall per year, the heaviest of it during the northwest monsoon which blows from October to March, though there are thunderstorms and sometimes torrential downpours even during the southwest monsoon which controls the climate the rest of the year.

Vivid sunshine gives way to sudden wind squalls followed immediately by violent cloudbursts, while the rivers come cascading from the mountains till they can widen between wooded banks heavy with the pungency of rich black soil and wet foliage, or they become swirling rapids till at last they reach the fertile clearings of the plantations and the mangrove swamps of the coast. In other parts of Borneo the rainfall, though perhaps

only half as abundant, still averages a hundred inches a year. As the equator passes through the island, there are no seasons. On the coastal swamps and plains it is always hot; at Sarawak it ranges from 70 to 90 degrees by day, but is cooler at night.

Borneo is a land of mystery and romance. Even in these days, when the darkest and most remote corners of the earth have yielded up their secrets to explorers, there are vast tracts of forest country in Borneo which are quite unknown. British, Dutch and Malay settlements are situated around the coast, but the heart of the island is inhabited by savages who are primitive and wild. It is suspected that some of them are cannibals, and most certainly many of them are head-hunters.

Borneo is a land of mystery because there is so much still to be learned about its people and its natural resources. We know that in its forests there are valuable gutta-percha and rubber trees, coconut and sago palms, rattan canes and iron-wood trees. It is rich, too, in orchids and all kinds of tropical flowering plants. In various districts there are coal, oil, gold, diamonds and other less important minerals.

Borneo is a land of romance because of its history. Of the original peoples who inhabited the island we know but little. When, centuries ago, it was overrun by Malays, these native tribes were driven inland. They still live in the heart of the forests—the Klemantans, Muruts, Kayans, Kenyahs and Punans—savages



HOSE

THIS KLEMANTAN CHIEF wears a war-coat made of the skin of a panther that he has slain. His wooden shield is stout enough to turn a blow from a sword, but would be of little use against enemies armed with rifles. The weird decoration hints at the relationship supposed to exist between the native tribes of the South Seas and the Indians of Puget Sound.



HOSE

AMONG THE KENYAHS, the warriors paint upon their shields conventional designs of human faces, then ornament these grotesque escutcheons with tufts of hair from the heads of their slaughtered enemies. Their chief weapons are the sword and spear. Under Western influence native warfare has, however, been reduced chiefly to the avenging of injuries.



Hose

WELL-WORN TRACK THROUGH THE FOREST NEAR THE RIVER BARAM

The greater part of the population of Borneo is settled along the banks of the rivers, so that the best "roads" are to be found near the waterways. The trees with the straight, smooth trunks are tapans, which are the giants of the forest of Borneo. The forests contain about sixty kinds of timber which could be used for commercial purposes.

BORNEO THE ISLE OF SUMMER



A TINY TARSIER

This lemuroid primate is nocturnal, arboreal and insectivorous in habit. It is also called the mabmog.

whose principal weapon is the blow-pipe, whose chief occupations are hunting and

fighting. A sixth and very numerous people of Borneo are the Ibans, or Sea Dayaks, or Dyaks, on the lower reaches of the main rivers of Sarawak, but also to be found in British North Borneo and the adjacent Dutch territory.

The control of Borneo is divided between the British and the Dutch, though both Portuguese and Spaniards had attempted to gain a foothold on the island before them. The Dutch established trading-posts as early as 1604, but gained little authority for more than two hundred years. The natives were difficult to control and pirates were numerous. No white man dared venture far from the fortified towns.

The first white man who gained any influence over the natives was an Englishman, James Brooke, who had served the East India Company before he determined to put down piracy and civilize the inhabitants of Borneo. His resolve was due to a voyage to China during which his vessel made its way among islands marvelous



DREAD GIANT THAT WALKS THE FOREST WAYS

Orang-utans are native to Borneo. The name in Malay means "man of the woods." A full grown male stands about four feet, six inches high and its arms are enormous. It keeps mostly to the trees and is fond of fruit.



HOSE

THESE YOUNG IBANS. of the Sea Dyak group of Bornean tribes wear a gala dress rich with ivory, shell and silver and gay with gold-embroidered scarlet. For a hot climate the boy's attire, which conceals none of his splendid muscular development, would seem the more appropriate, though even his sword and turban are elaborate with trophies of the chase.



HOSE

THIS DAYAK GIRL wears a corselet of rattan hoops covered with brass rings, above a skirt fringed with coins, to match those around her chest. Her shell necklaces are heavy with silver, as are her belt and bracelets, while the rings in her ears conceal little bells. Her comb is decorated with silver filigree and tinsel. No wonder she looks weighted down!

for their scenery but inhabited by savage tribes who were the scourge of the South Seas. Eventually the young man equipped a large yacht and trained a picked crew of twenty for the adventure of civilizing the wild men of Borneo and others equally barbarous. When he started, in 1838, he was but thirty-six years of age; but he was made of heroic stuff.

When he landed at Sarawak in 1839 he found several Dayak tribes, ferocious head-hunters, in revolt against the ruling Sultan. The Sultan's uncle, Rajah Muda Hassim, accepted Brooke's proffered aid; and the Englishman, with his small crew and some Javanese who had joined them, fought a winning battle. In view of this service the Rajah insisted upon abdicating in Brooke's favor, though the Sultan did not confirm the title till two years later.

Rajah Brooke and the Pirates

Brooke now determined to suppress piracy for the sake of developing the commerce of the archipelago; and to this end he first attempted negotiations with the chiefs of the most offensive tribes, but to no avail. He then made successive expeditions against the Dayaks, Malays and Arabs who had been making the most ferocious raids upon white traders, in the course of which large numbers of the pirates were slain. On his return to London in 1847 he received high honors and was made consul-general to Borneo. The name of Sir James (Rajah) Brooke became world famous. For over a generation he ruled wisely, suppressed most of the head-hunting in British Borneo and persuaded large numbers of Dayaks to take up agriculture.

Now the Chinese who had been working in the alluvial gold deposits in Upper Sarawak sacked Kuching in 1867, burned Brooke's house, and would have taken his life but that his nephew raised a force of the Malays and Dayaks of the district and suppressed the insurgency. This nephew succeeded Sir James in 1868 and the office of rajah became hereditary in their family, though it is governed like a crown colony as an independent State under the protection of Great Britain.

Plantations and Lumbering

Besides Sarawak, British Borneo (which became a protectorate in 1888, and which consists mainly of Mohammedan Malays, with a sprinkling of white men and Chinese) includes Brunei and North Borneo. All have huge coffee, coconut and tobacco plantations and important lumber companies.

Brunei is a Mohammedan state the present Sultan of which is a minor. The chief town, Brunei, is so subject to the rise and fall of the water level that the British Resident who conducts the administration had his house built upon piles at the end of the river, while the jungle-clad hills rise up about the town. The old native quarter is, indeed, built entirely over the river and some of the dwellings actually float upon the water. The market venders, usually women in wide straw hats, array their stalls with many brass and silver articles to tempt the purse of the traveler, and with cotton cloth and foodstuffs, each in a little boat anchored to the pile dwellings, and to these the purchasers make their way in other boats under a bombardment of native vociferation. The scene presents mingled odors of fresh-caught fish, rotting piles, and over-hot humanity, while toward evening a million frogs play bass in a symphony of bird and insect sounds—and mosquitoes and sometimes ants puncture one with fiery thrusts and from the nearest jungle one may sometimes hear the cries of a band of monkeys.

As to British North Borneo, it has a coastline of over nine hundred miles and in Sandakan, on the east coast, the one fine natural harbor of the island. At this point Borneo lies so near the Philippines that ships can make the crossing in less than a day. The tourists will find good hotel accommodations at Sandakan, with such touches of Western civilization as an automatic telephone service, a scientific society and a racing association.

Sultan Wears Huge Diamonds

Dutch Borneo is on the whole very much less developed than British Borneo,



COOLIES CARRYING SACKS OF PEPPERCORNS TO A BARGE

The soil of Borneo is sufficiently fertile for almost any tropical product. The pepper plant was introduced into the island from India, and large quantities of pepper are produced in Sarawak; but owing to a disease among the plants the supply is becoming smaller every year. The red peppercorns we know are the dried fruit of the plant.



EFFICIENT MEANS OF TRANSPORT ON A LARGE PEPPER ESTATE

Hose

Pepper plants grow best in narrow, sheltered valleys where the damp soil has been fertilized with fallen leaves. Some of the estates in Sarawak are so vast that light railways are needed to transport the sacks of peppercorns quickly and easily to the storehouses. Sarawak also exports sago, oil, rubber, rattan, gold and illippi nuts.

in part because of the sparsity of its population, which is confined to settlements along the rivers. There are two administrative areas, a Western, and a Southern and Eastern District, which once the Dutch East India Company undertook to control but which now the Dutch Governor-General governs, largely through the natives.

The Sultan at Tengarung has a palace lighted by electricity and protected from the rains by a galvanized iron roof, which is his great pride, and it is rumored that he has had a total of forty wives. At any rate, he wears incredible great diamonds and keeps fighting cocks. His subjects in the interior are still somewhat addicted to piracy and head-hunting. There are, however, Arabs and Chinese in the mines and fisheries, and on the plantations, and the Chinese conduct a considerable trade with their own country. Dutch Borneo contains a wealth of minerals. There are big oil fields at Balikpapan, and new wells are continually being brought in. There are diamond fields, of which probably the richest lies at Martapura, and the timber (ironwood) and rubber industries are of considerable consequence because of the value of their products. In Martapura and several other districts of the southeastern division there is ship-building, iron-forging, diamond-polishing, gold and silver-smithery.

Borneo's location naturally directs her trade to China and Australia and to the Philippines. One expects her trading vessels to go forth laden with ironwood and rattan, rice, tobacco and spices, hemp, gums and resins. It is more surprising to find in their holds the gelatinous birds' nests found and collected in the vast sea caves of coastal regions, a Chinese delicacy, and *bêche-de-mer*, for the making of Chinese soup. There are also armadillo skins, seed pearls, gambier—a substance used in tanning and dyeing—camphor, and mineral oil from a rich field at Miri.

Need Roads and Railroads

One drawback to development in Borneo is the lack of good roads and railroads, though there are bridle paths and

native trails. River boats connect the villages and coasting steamers ply from port to port.

Warring Tribes of the Interior

For the most part, as we have indicated, the dominant native population is Malay. More interesting as a matter of study are the savage races of the interior. Most of these tribes live in communities ruled by chiefs, but numbers of them wander about in the jungle, living on wild fruits and the flesh of wild animals. Being of different races and speaking languages that are unintelligible outside their own districts, they are constantly making warfare upon their neighbors. There is a good deal of sickness among the natives, due chiefly to lack of cleanliness about their persons and the food they consume.

In such a country as Borneo, with its thousands of miles of forest and jungle, the people of the interior are mainly dependent for their living upon the wild creatures found there, though sago is cultivated in some places, just as rice is widely grown in the more civilized districts. Fortunately for the aborigines, deer, wild pigs, wild cattle and other animals are plentiful. These are snared in traps or are brought down by a poisoned dart from the blow-pipe.

The Hairy "Man of the Woods"

Monkeys, which are numerous, are killed and eaten; and here reference must be made to Borneo's distinctive wild animal—the orang-utan. This great ape, whose name means literally "man of the woods," grows to a height of over four feet; its hair is reddish in color; and the extraordinary length of its arms enables it to travel at an extraordinary pace by swinging itself from tree to tree. Elephants also are found, but only in North Borneo. The tarsier, a mouselike creature that lives on insects, but is really a primate, and thus belongs to the same order as do the apes, is also a native of Borneo. He is the odd little fellow shown on page 261.

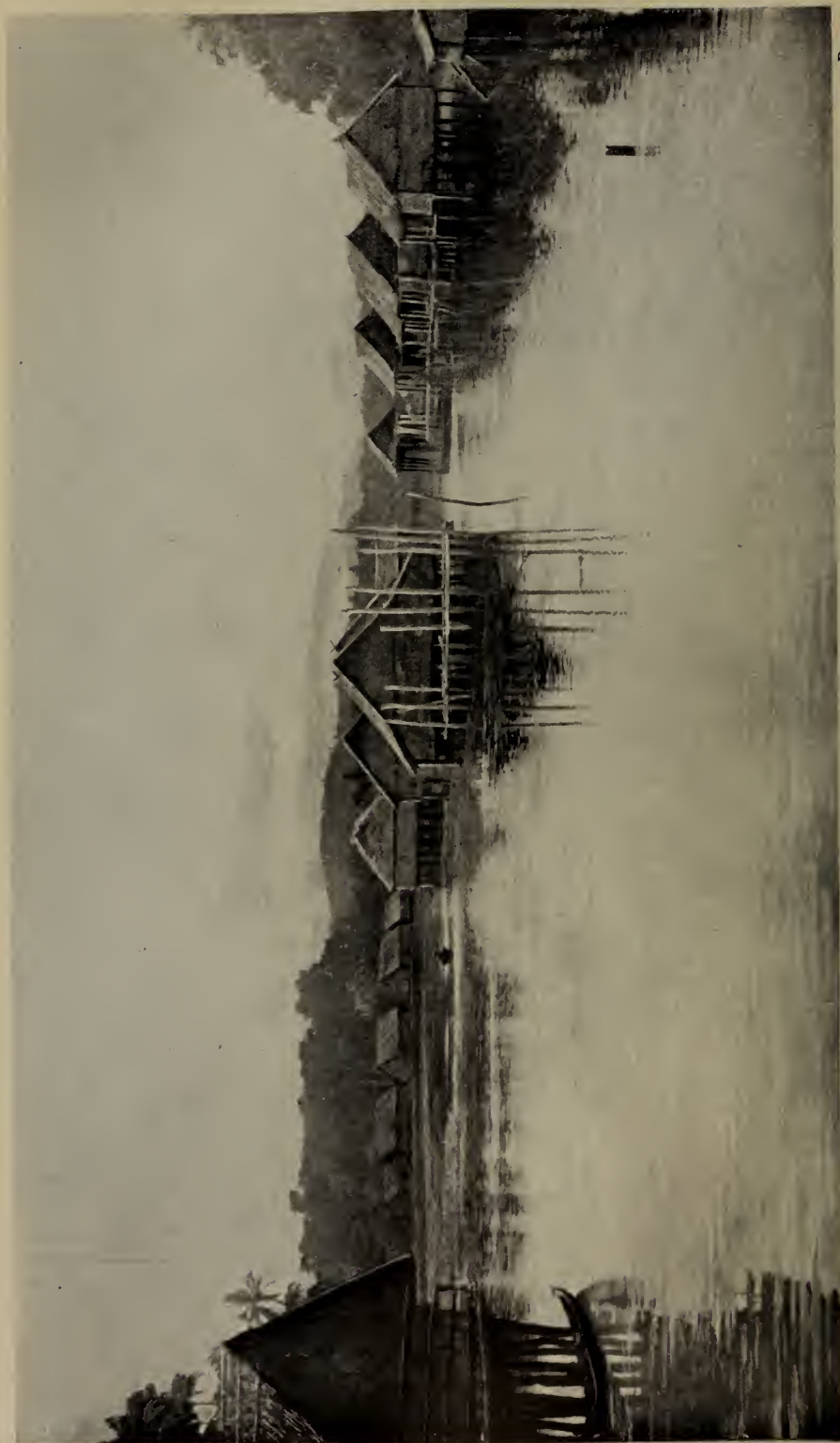
There are tapirs and ant-eaters, a monitor lizard, pythons and cobras. There are



Hose

CURIOUS GRAVE OF A CHIEF IN THE DEPTHS OF THE JUNGLE

Passing through the Bornean jungle we may see a curious structure such as the one in the photograph. It marks the grave of a chief, and the boxlike building is erected to keep off the rain. Bags of food are suspended from the structure to appease evil spirits. Some of the tribes are very particular about the treatment accorded to their dead, even embalming the corpses and sometimes observing extended periods of mourning.



Rutter

COAST VILLAGE OF MENKABONG WITH THE PEAK OF MOUNT KINABALU IN THE DISTANCE

Menkabong is situated in British North Borneo, and the houses have been erected over the water on piles as a protection against head-hunters. These Sea Dayaks, also known as Ibans, are Malays, who inhabit the coastal regions. Of all the native inhabitants of Borneo, they have the worst reputation as head-hunters, but under the firm rule of the British and the Dutch this custom is dying out. Mount Kinabalu, seen towering to 13,593 feet, is venerated by the superstitious natives as the resting-place of departed spirits and as a dragon's home.



Hose

KLEMANTAN FAMILY AT HOME IN THEIR APARTMENT WITHIN A LONG-HOUSE

Many of the villages in the interior of Borneo consist of one building, which is called a "long-house," and may be four hundred yards in length. These houses are raised on posts above the ground and have walls and floors of split bamboo or roughly hewn planks, and roofs of palm thatch.

A long-house is divided into many cubicles, each occupied by a family; and a long gallery, which serves as the village street, runs along the front of the building. Grass mats woven by the women are used as beds, chairs, tables, carpets and partitions.

minas, birds that can be taught to speak. The honey-bear, by which is meant the little Malay bear, a lover of the stores of the wild bee of the jungle, is common in this land of queer creatures. There is also a mouse-deer or plandok, a dainty creature no longer than a rabbit and not nearly so heavy. A tender morsel for anyone or anything that can catch it, it goes leaping soundlessly through the brush, its big eyes seemingly round with fright.

Flying-frogs and "Pepper Ants"

At twilight the flying-foxes play by launching themselves parachute-like from the branches to the ground. There are even flying-frogs in the swamp lands. Less attractive wild swine, many with hornlike tusks, trot about in gluttonous herds, their little black eyes savage with hatred of the intruder. There are so-called Borneo ponies in British North Borneo; and if one is to enumerate several other living creatures that play a prominent rôle on this extraordinary island, one must name the fire ants and "pepper ants" with their painful bite, the sand-flies, the wood-lice and in the marshes, the horse-lice. The coastal waters are full of sharks. Scientists judge from the presence of a number of these species of animal life that the island may once have been connected with the continent of Asia.

Spiked Fruit and Pitcher Plants

Among other hazards of life in the jungle might be mentioned the durian, a large fruit covered with stout pyramidal spikes. When such an object falls from the top of a tall tree it really injures people. Its flesh is prized by the natives, though white men are appalled by its odor. Another strange thing found in Borneo is the pitcher plant, some of which are large enough to hold a quart of rain water.

Among the many interesting things to be seen in Borneo are the "long-houses," the wooden buildings in which communities generally dwell together. All the native tribes, with one exception, build these long-houses. The Punans, who wander

from spot to spot, but usually inhabit the densest part of the jungle, do not lead any kind of village life. When some of them have been induced to settle, they have only been able to construct the rudest of houses, a poor imitation of those of their neighbors.

The long-houses of the various tribes differ only in size, in certain details of construction and in their decoration. One such house may be set up to accommodate fifty people; others will hold as many as three, and even five hundred. A long-house is built of wood and may be as much as four hundred yards in length. The structure is divided into a number of rooms in which separate families lodge. This article shows an excellent view of the interior of one of these communal houses on page 269.

In a Kayan "Long-house"

If we were to peep into one of the rooms we should see that it was about twenty-five feet wide, that it contained several alcoves or sleeping-places screened off at the sides, and that in the centre of the mat-covered floor was a rough fireplace made of a slab of clay in a wooden frame. For ventilation and light, a trapdoor, opened and closed at will, is fixed in the roof.

In addition to the family fireplaces, the tenants of a long-house have access to other fires that are kindled at intervals along the outer gallery. Some of these are kept continually alight. Over one of these communal fireplaces—usually the one near the chief's quarters—is to be seen a row of dried human heads, together with various charms and war trophies.

All such native dwelling-houses are built along, or near, the water. This is because rivers are the great highways of Borneo. There are no roads except in those coastal settlements where towns have sprung up, and there are not even beaten tracks of any importance through the jungle. The long-houses are built upon piles because they thus offer better protection against marauding head-hunters; but the piles must be tall ones, for were the house not raised high from



WARRIORS OF THE QUARRELSOME SEA DAYAKS IN FULL DRESS

Hose

Muscular and graceful, these young men belong to the most warlike tribe in Borneo. Two of them have decorated their swords with tufts of human hair and all of them are wearing ivory armlets. The man on the right has a number of fibre wristlets which were once used as currency, a necklace of nuts, and, finally, earrings.

the ground, the sleeping inmates might be speared through the floor from below. We shall see that under the house are stored the boats that are not in actual use. Here, too, will be some of the livestock of the village—pigs, dogs, goats and fowls—all of which add to the unsanitary condition, however convenient the arrangement.

Of the native peoples mentioned, the Sea Dayaks, or Ibans, are the best known to white men. This is mainly because they are numerous in Sarawak. Stouter in build than his land brothers, the Sea Dayak has well proportioned limbs, his figure is neat and almost boyish, and he walks with an air that stamps him as a

BORNEO THE ISLE OF SUMMER

resolute fellow. Though he is not displeasing in countenance, his lips and teeth are usually discolored by the chewing of betel-nut.

The Sea Dayak is lively in disposition, often boastful and excitable, and always talkative and cheerful. His chief characteristic, however, is his restlessness. The darker side of the picture presents him as quarrelsome and treacherous, with little liking for discipline and with little loyalty to his chiefs. He is, moreover, an inveterate head-hunter.

The Kayans, who are found throughout central Borneo, are a warlike people, but they are less quarrelsome than the Dayaks. They excel above all things in various handicrafts. They are skilled in smelting iron and in the manufacture of swords. The Kayans are probably the

best boat-builders on the island, and some of their decorative work on the boats and on the paddles is very striking.

Both the Kayans and the Kenyahs are fairer of skin than are the other tribes, and their physique is finer. The Kenyahs have the reputation of being the most intelligent and courageous of all Borneo's native tribes.

The Punans are the most primitive of all the tribes. They roam the forests in bands, supporting themselves as they travel on wild sago and other natural products, and by shooting game with their blow-pipes. For most manufactured articles, such as swords, spears and cloth, they are dependent upon others. Even to make their blow-pipes they must go to the iron-working Kayans, for the metal rods used in boring the long tubes.

BORNEO: FACTS AND FIGURES

GOVERNMENT

Great island in the Malay archipelago. Bounded on north and northwest by South China Sea, northeast by Sulu Sea, east by Celebes Sea and Strait of Macassar, south by Java Sea, and southwest by Karimata Strait Area, 289,860 square miles; estimated population, 2,660,134. Politically Borneo is divided into (1) British North Borneo, (2) Brunei, (3) Sarawak and (4) Dutch Borneo.

BRITISH NORTH BORNEO

Occupies extreme northeast section of the island. Area, 31,106; population (1921), 257,804, chiefly Mohammedan settlers on coast and aboriginal tribes in the interior. Administered by British North Borneo Company, holding grants from Sultans of Brunei and Sulu with governor in Borneo and court of directors in London. Chief products: timber, sago, rice, coconuts, gums, coffee, gutta percha, rubber, tobacco, coal, iron and gold. Additional exports: birds' nests, seed pearls, *bêche-de-mer*. Railway, 127 miles. Communication by telegraph, telephone and wireless. Protestant and Catholic missions. Capital, Sandakan, population, 11,930.

BRUNEI

Malayan Sultanate on northwest coast of island under British protection. General administration by British Resident. Area, 2,500; population (1921), 25,444, chiefly natives. Native industries: boat-building, cloth-weaving, brass foundries; chief products, mangrove extract, rubber, sago and timber. Imports: rice, tobacco, piece goods. There are 4 wireless stations; 5 vernacular schools in 1926. Chief town: Brunei, population, 12,000.

SARAWAK

Independent state on northwest coast of Borneo. Area, 50,000 square miles with 450 miles of coastline; estimated population, 600,000. Administered by English rajah; under British protection. Exports: sago, flour, pepper, gold, rubber, gutta jelulong, gutta percha, cutch, crude oil, coal and rattans. There are 34 post offices; 20 wireless stations, local government telephone system. Protestant and Catholic missions. Chief towns: Kuching (capital), Sibü and Miri.

DUTCH BORNEO

Central and southern section of the island, comprising nearly three-fourths the entire area. Two divisions: Western District, area, 56,838; population (1926), 685,545; Southern and Eastern Districts, area, 149,972; population (1926), 1,091,341. Legislative power divided between Governor-General of Dutch East Indies and Volksraad (members elected or appointed—some natives). Administration in hands of Governor-General assisted by an Advisory Council of five members. Chief occupations: mining, fishing, agriculture, spinning, weaving and dyeing, manufacture of iron implements, gold and diamond-polishing. Chief exports: copra, petroleum, antimony, gold, diamonds, iron, mineral oils, timber, rice, pepper, tobacco, spices and coffee. Telephone, telegraph and radio communication. Entire religious liberty. Majority of natives Mohammedans. Protestant and Catholic missions. Government primary and secondary schools for all classes; instruction in native tongues and Dutch. Normal and technical schools. Capital, Banjermasin, population (1926 estimate), 64,947.

THE MEN OF THE BLOW-PIPE

How the Bornean Savages Use This Peculiar Weapon

The blow-pipe is a mysterious weapon which deals death at seventy yards; those most addicted to its use are perhaps the Borneans, though the blow-pipe is used in several other parts of the world. Of the Borneans themselves, savage and civilized, and the beautiful country in which they live under Dutch and British rule, we have just dealt in the preceding chapter. The pictures tell the story of the fashioning of the "sumpitan," as the natives call the blow-pipe, from the wood of the jajang tree, its testing and the poisoning of the darts with the sap of the upas tree. Strange indeed that such a curious device should also be used twelve thousand miles away, in Peru!

IT is green dusk in the forest. The tall palm and gutta-percha trees, with their interlacing branches and their masses of creepers, shut out almost all the sunlight. Down at their base the undergrowth of jungle is thick and at times impenetrable. It needs an ax to hack one's way through the mass of vegetation. In few other places in the world is the forest so dense and forbidding as it is here, in the heart of Borneo.

The humid heat is soporific. The ferny soil gives off a dank aroma that mingles with a faint perfume of wild orchids. High up in a tree a monkey begins to chatter. Soon others join in. The squabble, whatever its cause, becomes a noisy one. A score of monkeys are proclaiming their grievances to the world. Suddenly two dark-skinned native youths steal noiselessly into a little clearing between the trees. Each of them carries a long wooden rod with a slight curve in its lower end. This is the famous blow-pipe of the Borneans, a weapon of the most deadly character when used to propel one of the poisoned darts such as the natives carry in the quivers at their waists.

There is a moment's pause. Then a dart is slipped into the blow-pipe, the weapon is raised, aim is swiftly taken, and the chattering overhead breaks into confused cries of alarm as a monkey topples down, down through the leafy branches. The Bornean hunter has secured another of the tree-folk for his "bag."

And what is this blow-pipe, or "sumpitan," to use the native name—this death-dealer of savage devising? It is a weapon

which, whether used in warfare or—as more commonly—in the chase, is the Bornean's typical instrument of destruction. In such a country as his, thickly covered with forest and matted jungle, a bow and arrow would be of little service. The blow-pipe has been fashioned to provide the forest-dweller with a weapon peculiarly suited to his surroundings.

For fighting, swords and spears are also employed by the native warriors, but the skill with which the blow-pipe and its deadly missile, the dart, can be utilized, makes it even more formidable. A Punan, it is stated, can kill his man at a distance of seventy yards.

The making of a sumpitan is an interesting process. First of all, a jajang tree is felled. From the hard, straight-grained wood are split strips of about eight feet, roughly, the length of the blow-pipe. One of these strips is then fashioned, by means of an adze, into a cylindrical form some two or three inches in diameter. But let us watch a native craftsman as he proceeds to turn out the finished article.

As one of our illustrations shows, the blow-pipe maker stands upon a platform several feet above the ground with the wooden rod set up vertically before him. This rod is strongly lashed to the platform and other supports during the process of boring that follows.

The operation is accomplished by means of a long, straight iron rod rather less in diameter than the bore desired for the pipe. One end of this rod is chisel-shaped with a keen edge. The Bornean makes his first incision with great care,



FIRST STEPS IN THE ART OF MAKING A BLOW-PIPE

Though the warriors of Borneo carry swords like the one here used as an adze, their most useful weapon is that amazing instrument, the blow-pipe. This Kayan is here shown cutting a length of a hard wood called "jajang" to the right diameter. In succeeding photographs he will be seen as he completes the making of his blow-pipe and uses it.



BORING A HOLE WITH NEITHER LATHE NOR BIT NOR BRACE

The pole of jajang wood is some eight feet long, and has here been whittled to a thickness of about two to three inches. The next process is to hollow it. To do this, the Kayan stands on a platform and hammers downward with an iron rod while a friend pours water from a bamboo vessel into the hole in order to float out the accumulation of chips.



THE CRAFTSMAN SEES THAT HIS LABOR IS GOOD

After the blow-pipe has been bored it is cut down to its final width of an inch at the mouth-piece, tapering to three-quarters at the muzzle. The central bore is then polished to a diameter of a third of an inch. Next the whole weapon is slightly bent, with the aid of heat, so that on looking through it only half of the hole at the farther end can be seen.



AT WORK ON THE SILENT DARTS OF DEATH

Finally comes the business of making the darts for the blow-pipe. These consist of two portions. The piercing part is a spike of tough wood about nine inches long, to the hinder end of which is attached a plug of hard pith. This must fit the pipe exactly for some of its length and then taper forward to lessen the air-resistance when in flight.



HOW THE IRON FOR THE BORNEO BLOW-PIPES IS FORGED

The iron for the tools used in making the blow-pipes is smelted in a charcoal fire, into which a blast of air is blown by working a sort of feather mop, like a piston, up and down in the hollow logs seen on the left. The metal is then hammered with a stone mallet on a stone anvil. These workmen are Kalabits, expert smiths like the Kayans.

exactly in the centre of the flattened end of the pole. He then continues to pierce the wood with downward blows. He turns the iron rod in his hands as he does so, and thus, inch by inch, a hollow is formed right through the tube. As the rod while being worked in this manner must be held exactly vertical, the blow-pipe maker fixes two or three forked sticks horizontally and at different levels above the platform. In these guides the metal rod slides easily up and down and is kept in the straight line required.

In the picture at which we have been looking there is a young assistant, to whom is allotted the task of pouring water from time to time into the steadily deepening hole. In this way the little chips of wood are washed out. As a rule, the work of boring through the whole of the pipe takes about six hours' continuous labor and unlimited patience.

The lower end of a blow-pipe is always slightly curved. This shape is produced by bending the pipe and binding it in position with rattan fibre for some time. The object of the curvature is to allow for the bending of the tube caused by the weight of a spear-head which is often fixed to the top. In this way the blow-pipe may be converted into a sort of bayonet.

Should the desired curvature not be secured by the means just described, the wooden tube is hung horizontally on loops, and heavy weights are then fastened to the muzzle end. When the craftsman peers through the bore, and sights only a half-circle of daylight, he knows that the precise degree of curving has been attained. He then heats the wood with torches so that when the tube has cooled it retains the curvature. Nothing now remains to be done but to finish off the blow-pipe by polishing. For



THE KAYAN GETS POISON FROM A RUBBER-LIKE TREE

A blow-pipe is deadly when used against small animals, and even against human foes; but this is solely due to the poison on its darts. The tree that furnishes the poison is the ipoh, more familiar under the name upas. Our Kayan has made deep cuts in the bark and is here collecting in a bamboo cup the milk-white sap that flows from the tree.



HE PREPARES THE POISON AND TIPS THE DARTS

Before use the sap of the ipoh tree must be thickened by heating over a fire, a process which leaves it a dark paste. It is then thinned down again. It is now ready to tip the darts of the deadly blow-pipe. Many legends have grown up about the poisonous upas tree, such as that it kills all life around it for a great distance; but this is absurd.

smoothing the rough outside the best article to use is the dried skin of the sting-ray, a sea-fish which makes its way up the rivers. An extra surface is afterward given with the leaf of a certain shrub which forms a good substitute for emery paper. The inside—the bore itself—is polished by means of a long piece of rattan, a fibrous cane, which is pulled to and fro through the entire length until the blow-pipe maker is satisfied that the sides of the tube are really smooth.

Without its poisoned dart the sumpitan would of course have but little effect. The deadly little missile is made from the tough wood of the wild sago palm. It is only some nine inches in length and one-eighth of an inch in diameter. At one extremity is fitted a tapering pith cylinder an inch long the butt end of which is exactly equal in diameter to the bore of the pipe.

The poison which is applied to the dart is obtained from the ipoh tree. When the

bark is cut a milky juice oozes therefrom, and this is collected and heated over a fire until it forms a dark brown paste. For the final application this paste is worked into a thinner consistency. In the meantime a circular groove has been cut around the shaft of the dart, at a distance of two inches from its tip. The poison is now rubbed in here and left to dry.

Such a poisoned dart as described is astoundingly effective if used against small game. But for human beings, for deer and pig and other larger creatures, it is necessary to employ a bigger dose of the ipoh poison. For this purpose a piece of metal, usually tin, is slipped into the shaft of the dart and the mixture spread upon its surface.

Although the tools employed by the native craftsman are rough, the blow-pipe is fashioned with considerable skill and artistry. Were this not the case it would be impossible for the Bornean warrior or hunter to attain precision of aim.



TWO BORNEO MARKSMEN OUT AFTER MONKEYS

To make the blow-pipe with such primitive tools is wonderful enough, but now let us watch the weapon in use. Light enough to be poised in one hand, it is roughly aimed while the dart is being inserted. Then comes the final aiming and—*puff!*—a monkey is dead. Within a range of seventy yards many of these marksmen are as accurate as a rifleman.



BACK AFTER A SUCCESSFUL DAY IN THE JUNGLE

Behold the spoils of the chase! Bigger game than monkeys can be killed with the blow-pipe, and our instructor in the art has captured a fine young forest pig for the cooking-pot. It will be noticed that just as rifles can have bayonets affixed to them, so the Borneo blow-pipe is given a second use by having a spear-point lashed to the muzzle end.



Miss C. J. Hunter

THE SAKAIS OF MALAYA HUNT WITH "SUMPITANS"

Jumping now from Borneo to the neighboring Malay Peninsula, we again find the blow-pipe in use among the forest tribes. Indeed, it is thought that Malays introduced the weapon to Borneo. These Sakais, however, may in their turn have taught the Malays, for they are descended from older inhabitants, who were akin to Australasian peoples.



G. M. Dvott

TWELVE THOUSAND MILES FROM BORNEO: THE BLOW-PIPE IN PERU

The blow-pipe as used in the forest country of Peru east of the Andes Mountains—called the “Montaña”—is hardly to be distinguished from that of Borneo, except that the poison used is curari, which paralyzes the action of the heart. The quiver in which the darts are kept slung around the waist of the marksman is also like that of the Kayan.

Must Use Iron Rod of Kayans

It is interesting to note in this connection that the Punan tribesman, who is one of the most expert users of the blow-pipe, cannot make his chosen weapon unassisted. He has no knowledge of working in metals. For the iron rod which is so necessary for the boring of the tube he has to go to his neighbor, the Kayan. At the present day the Kayans are the most skilled ironworkers on the island, and their swords and spears are rivaled only by those of the Kenyahs. Such iron as they use is mostly obtained from Malay and Chinese traders, but native ore is still smelted at some places in the far interior.

When not in use, the darts are kept in a quiver made of a section of bamboo fitted with a cap. This receptacle is attached to the belt by a wooden hook. As a general rule, the darts themselves are wrapped in a squirrel skin, while tied to the quiver is a small gourd in which is carried a supply of the piths used in the propulsion of the darts.

Like so many savage people the Bornean natives are steeped in superstition. They believe in magic, in spells and charms, and accordingly there will be a special charm attached to the quiver of a man's blow-pipe. This charm is often dipped in the blood of an animal that has been slain. The owner believes that the virtues of his mascot are thus greatly increased.

Death-tubes in Malaya and Peru

The fact that some of the inland tribes of Borneo were originally of Malayan stock, and also that the island was overrun by Malays centuries ago, accounts for the presence of the blow-pipe as a national weapon. For in the Malay States the sumpitan has been in regular use as long as history can record. In Perak, in the jungly hill country, some of the aboriginal inhabitants, such as the Sakais, still roam the woods with blow-pipes in hand. The Sakai makes his blow-pipe of a single joint of a rare species of bamboo; and he whittles darts as fine as knitting needles from the mid-rib of a certain palm leaf.

With these he can kill at thirty paces.

But if there is nothing extraordinary in the fact that the blow-pipe is common to the Malay States and Borneo, what shall we say when we learn that it is used by such far-distant a people as the natives of Peru, half the earth's circumference removed? Here is a seeming marvel. There can be no racial connection between the Indians of Peru and the several tribes of inland Borneo. It is not at all likely that any communication has been held between the two peoples in past times, and yet in each country the primitive savage forest-dweller has found out the secret of the blow-pipe's power to propel a poisoned dart from its mouth.

Make Use of Nature's Poison

We can but gather from this remarkable coincidence that the evolution of the blow-pipe from some earlier form of the weapon has resulted from similar conditions of life both in Borneo and in Peru.

In the swampy, jungly country east of that mighty chain of mountains, the Andes, whence the tributaries of the great Amazon flow, in the region known as the Montaña, the native Peruvian lives much the same kind of life as does his brown-skinned brother of the Punan, Klemantan, Kayan and other Bornean tribes. He hunts and faces his enemies in a dark forest world where no other weapon could possibly serve his purpose so well. The trees of his own land furnish the wood from which the indispensable blow-pipe is made.

The Peruvian Indian has also at hand the poison with which to anoint his darts. In place of the ipoh tree of Borneo, he resorts to a plant from which he can extract curari. This poisonous substance is deadly in its effect; it quickly causes paralysis and stops the heart's action. Like the juice of the ipoh, it is, of course, poisonous only if it finds its way into the blood directly through a wound. Otherwise game killed with it would not be fit for eating. In both South America and Borneo we thus see how the savage has turned to Nature to provide him with his surest weapons and means of securing his food.

ISLES OF UNREST

Among the Fierce Tribes of the Philippines

The Philippine Archipelago, more than 4,700 miles southwest of Hawaii and separated from Borneo and French Indo-China only by the Sulu and China seas, numbers a total of over seven thousand isles, though many are but coral atolls and the two largest, Luzon and Mindanao, could probably hold all the others within their ragged shorelines. As they lie directly on one of the great trade routes to the Far East, their history until fairly recently was one of piracy and unrest. The leading tribes had a civilization when the Spanish conquerors came; and since United States occupation these same peoples have made rapid progress in Western ways. The climate is tropical, the soil fertile, and there are valuable mines and forests.

THE cluster of islands known as the Philippines, in the Malay Archipelago, stretches north and south for over a thousand miles through the Pacific, a part of the subterranean mountain range that makes stepping stones to Borneo and Celebes. Luzon, with its deep, tide-bitten Manila Bay, and Mindanao are by far the largest of these islands, though others, Samar, Negros, Palawan, Panay, Mindoro, Leyte and Cebu are of fair size. The remaining seven thousand include numbers of mere coral atolls. There is, however, a combined coastline of nearly twelve thousand miles. At Manila the dry winters may be as cool as 70 degrees, though the wet springs are too hot for white men and inspire no great activity on the part of the natives.

This is a land of typhoons, perhaps twenty a year, with occasional tidal waves that wipe out villages. Earthquakes are a commonplace, and of the high mountains of the islands, twenty are active volcanoes. An eruption in 1897 destroyed the town of San Fernando on Mindanao, and Taal was violent as lately as 1911. The mountains are for the most part densely forested, for their slopes are watered by downpours of, often, two hundred inches a year. Pines on the upper slopes give way to bamboo on the lower. The government owns most of the forest lands. Here the jungle, where such exists, is densely tangled, and the trails are steaming hot, menaced by pythons and alive with mosquitoes. In places where the sea runs inland through mangrove swamps,

the mud is quagmire and the unaccustomed traveler sinks waist-deep in gaseous slime, while he pulls himself along by the snakelike roots to the booming of a billion frogs.

This is only part of the picture, however. In other places there are pretty coral islets and beaches of fine white sand with palm trees spreading lacelike against the sky. The large islands have vast tracts of fertile plantations in which sugar, hemp and coffee, rubber and tobacco, to say nothing of coconuts and bananas grow with tropical generosity, even at the expense of only moderate industry on the part of the cultivators. Rice has long been grown on walled terraces on the mountainsides.

In many places thatched houses are built low and broad to withstand the earthquakes; but some of the natives build their huts on tall piles or high in the trees for protection against reptiles, wild beasts and sometimes wilder neighbors. Fishing ranks next to agriculture in importance. There are said to be five hundred kinds of edible sea-food. Many of these would be familiar to us; but there are also five-foot clams, equally huge sea-turtles whose flesh is prized and whose tortoise shells make spectacle frames. One kind of sea-shell is split for window glass in native houses, one is used to edge the knives used in the rice fields, another kind makes good drinking-cups. The seas also contain playful dolphins, furtive dugongs and blunt-nosed cachelots.

Probably the deepest of half a dozen deep holes in the floor of the Pacific lies

just off Mindanao. According to the sonic depth-finder of the Carnegie Institution, this hole goes 34,000 feet toward the centre of the earth—deeper than the highest mountains are tall. Another “deep” lies off Guam, the little island in the Mariana group some 1,500 miles west of the Philippines which the United States finds valuable as a fuel station of her fleet.

Fire-birds and Iguanas

The hills are the haunt of large wild buffalo and the jungles of the smaller timarau or water-buffalo, so often domesticated; monkeys leap from branch to branch and are often caught in mid-air by large eagles, while sun-birds and fire-birds are but a few of the myriad that add flecks of color to the scenery. Jungle fowl and large fruit-bats add to the native larder; flying-lizards lend a touch of strangeness and their big cousins, the iguanas, often grow to five feet in length. On the beaches a mound-building bird buries its eggs two or three feet deep and leaves its young to dig a way out.

It is believed that the original inhabitants of these islands were the fuzzy-haired dwarf Negritos of low intelligence who have long since been driven into the interior. Long before Columbus, Malay pirates began over-running the islands and as a consequence, Malayan blood and culture are evident in the various tribes of the Filipinos. At one time Chinese traders steered their junks across to the islands and gained a foothold, though repeated attempts were later made to drive out Chinese immigrants. Indeed, there are Chinese-Filipinos to-day of wealth and position.

Filipinos Malayan Immigrants

The next people to reach the islands were the Igorrotes, who represent the first Malay invasion. A second Malay invasion drove them northward and away from the coast. These latter are the people we know as Filipinos. They are the civilized tribes—Visayans, Tagalogs, Ilocanos, and others who were in control when the Spanish came. The Moros represent a third Malay invasion. They

are Mohammedans who live in the southern part of the archipelago. The name Moro is Spanish for Moor and was applied generally to Mohammedans: Mohammedan influence reached them as long ago as 1380.

It is, however, the representatives of the second Malay invasion who are the most important. They were Christianized and partly civilized by the Spaniards. Of these, the Visayans were perhaps the most highly civilized when the Spanish came, but since that time their progress has been less rapid than that of the Tagalogs, the leading inhabitants of Manila, central Luzon and Mindanao; for the Tagalogs are now the most highly cultured of the brown races of the islands. But we will have more to say of the Filipino tribes later on. The islands, named for Philip II of Spain, were first sighted by Magellan. (The term Filipino comes from the Spanish form of Philip.) When the Spanish sea-rovers, fresh from conquests in South America and the West Indies, turned to this Pacific territory, it was, as we have seen, not a race of savages they found.

Tagalog Language Preserved

Many of the most influential and important people of Manila to-day are Tagalogs. Indeed, the United States administration is preserving their language and teaching it in terms of the English alphabet. Some of the leading Filipinos also have Spanish blood in their veins and are called mestizos. The latter wear Western dress, the peasants with a Spanish neck-cloth. Of the population of some 10,300,000 which inhabits the Philippines, 91 per cent are Christian while 9 per cent are divided between Mohammedan Moros, a smaller number of pagans and a few Chinese.

From the earliest times the Moros were builders of swift craft. As the Koran permits, they practiced piracy and held slaves. Clad in metal armor of their own devising, armed with weapons loaded with their own gunpowder, they had for generations taken the strongest boys and the most comely young women from the Visa-



Ewing Galloway

A WATERFRONT VIEW AT MANILA, SHOWING WESTERN ARCHITECTURE

Manila has a number of fine public buildings, and literally hundreds of sugar, hemp and tobacco factories, sawmills and rice granaries. But we remember we are in the South Seas when, in the markets, we find such delicacies as tender baby octopuses and the wild tree melons known as papayas, to say nothing of that native favorite, duck eggs ready to hatch

yans to be their slaves; they had looted China and Japan of amber and sandalwood, silk and porcelain, they had taken diamonds, rubies and spices in Borneo. Their headquarters, Jolo, in Sulu, was the first city in the Philippines; and there they built passable houses, cultivated gardens and had as many wives as they could afford. They were a people skilled at carving and inlaying and working in precious metals; they had their own music and poetry, they possessed a written alphabet and had accumulated libraries—which were destroyed by the Spanish in their progress with fire and sword through the islands. Small wonder that when Cross and Crescent met, there was warfare that lasted intermittently for three hundred years! Magellan, who had discovered the islands in 1521, had made an alliance with the natives on Cebu when he crossed to Mactan and was killed in a hostile skirmish. The Spanish conquistador Legaspi (Legazpi) formed the first settlement on Cebu, and Spain took possession of the islands in 1565.

To-day these Moros keep chiefly to Mindanao and Sulu, where they dwell in pile-built villages along the coast and go

about in canoes. They are a bronze people with straight black hair and the keen eyes of the fighter. Quick to adapt themselves to Western ways, they show the influence of a Spanish civilization in the tight-fitting trousers that button up the sides, though their religion obliges them to wear turbans. The women love brilliant colors and jewelry.

The Igorrotes are all strongly built people with coppery, high cheek-bones and hair which the men wear to their shoulders as long as they keep to their own ways. However, increasing numbers of their children are being sent to school. The various tribes, of which there are twenty-three, all told, vary in culture and appearance, but their languages are derived from a common stock and there is a general resemblance both outwardly and in qualities of mind and character. Those in the remoter regions live by hunting and fishing, and one tribe, the Ifuagos of the mountain fastnesses, have the reputation of being head-hunters. Some of these when converted to the ways of peace have been found to make excellent members of the aggressive native constabulary. One tribe, the Tinguians, wear their

hair in a tuft upon the crown—a mode reminiscent of the Japanese. The Visayans outnumber even the Tagalogs. They are the chief inhabitants of the central part of the archipelago and of the north and east coasts of Mindanao. They are the chief agriculturalists of the islands and work contentedly on the sugar, hemp and coconut plantations. Such are the Filipinos.

Spanish rule in the islands was not a happy one, and in 1896 there was a great rising, and the Philippines became a veritable hornets' nest. When, in the course of the war between the United States and Spain, Commodore George Dewey sailed into Manila Bay and destroyed the Spanish fleet (May 1, 1898), and Manila soon afterward surrendered, Spain sold the islands to the United States for \$20,000,000. But the Filipino general, Emilio Aguinaldo, who desired immediate independence, continued revolutionary activities for several years; and it was not until he was captured that peace was restored and the first governor-general, the Honorable W. H. Taft, was able to begin the work of preparing the natives for self-government.

Under the rule of the United States order has been restored, roads built, schools established, and health conditions enormously improved. The Filipinos have been granted an increasing measure of self-government until now the most important offices, except those of governor and vice-governor (who is also superintendent of education), are held by the Filipinos themselves. However, the demand for complete independence is still widespread.

"Had the United States left the Filipinos to themselves, these islands would soon have been in a state of anarchy and probably would thereafter have belonged to Japan," declares no less an authority than Isaiah Bowman, director of the American Geographical Society. As it



Publishers Photo Service

RICE TERRACES BUILT ON THE MOUNTAINS

This engineering feat of a farm school in Banaue Valley, Mountain Province, is modeled on the rice terraces built centuries ago by the mountain tribes of Luzon. The walls hold water brought, often, long distances.

is, the Japanese are spreading into the Philippines and Japanese power in the Pacific has been enormously extended since the outbreak of the World War.

We have an epitome of Philippine history preserved for us in the capital at Manila, which lies along the Pasig River on Manila Bay, with a view of distant mountains. Here the tourist will find the months of December to March delightful, though April and May are hot and the rest of the year exceedingly rainy. There are really three Manilas, beginning with the "Maynila" of the original Malays, who built thatched wooden huts and used carabaos to draw their carts. Their quaint fishing-boats and multitudinous house-boats still line the canals of the most populous quarters, though sanitary conditions have been so enormously improved that malaria, leprosy and cholera are no longer such a menace. This May-

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nila the Spaniard Legaspi took and fortified in 1571. The walls that still enclose the old city were originally designed to keep out pirates. Here one may still find the Manila of the old Spanish days, with its medieval convents and churches and its balconied Moorish houses, although in 1863 a big earthquake shook down at least forty of the public buildings. Here one still hears Spanish in the streets; for though English has been made the official language of the islands, Spanish may be substituted until 1940. Opposite Real Gate is an aquarium worth visiting which dates from 1913.

Entering the Manila that has sprung up since the authority of the United States was extended to the islands, one finds large piers and warehouses and a floating dock; for Manila handles the lion's share of the shipping of the Philippines. McKinley Plaza is the site of the official buildings, though the governor-general

lives elsewhere, on what resembles a handsome country estate.

Across the river from the walled city, with which it is connected by the Bridge of Spain, is the commercial centre, Binondo. Here is the main post office, here are the leading banks and shipping houses and most of the big hotels and theatres. The chief street, La Escolta, has European and American shops. At the end farthest from the bridge the tourist will find the native Chinese and other jewelers, painters and enamelers. After a day here or in the wholesale district, one repairs to the Luneta, an elliptical drive along the shore where band concerts are given and the Army and Navy Club is situated. A highway leading along the river, Paseo de Magallanes, leads to an obelisk to the discoverer of the Philippines. Manila has many good schools and colleges which will be found listed in the summary. No expense has been spared.



Philippine Bureau of Science

A KALINGA WOMAN'S DRESS IS AN AMAZING MEDLEY OF COLOR

The Kalinga tribe, which inhabits a part of Mountain Province in the north of Luzon Island, is a fierce and warlike people who were never tamed by the Spaniards. The United States of America, however, has partially subdued them, and, though some of the natives are still wild men of the woods, most are now reasonably law-abiding people.



Bureau of Science, Manila

PENSIVE PERFORMERS OF A PHILIPPINE STRING DUET

Many people have testified to the musical aptitude of the civilized Filipino. Every village, they say, has its band, almost every house a harp or piano. This photograph of two gaily clad men about to play a duet shows us that this love of music is shared by the wild tribes, for they are members of the half-savage, half-cultured Bagobos of Mindanao.



THIS BOY OF BATANGAS IS AN EXPERT CLIMBER OF TREES

Filipinos have found that coconut palms yield something else besides nuts. They know that the flower stalks secrete tupa, a juice that makes a delectable drink. Notches are cut in the trunks to give foothold and then boys clamber up, apparently with the greatest ease.

This lad carries upon his back a vessel in which to collect the liquid.



© E. N. A.

DARK-SKINNED MORO WARRIOR WITH SWORD AND PAINTED SHIELD

Although by far the greater number of the inhabitants of the Philippines are Christians, there are still many pagan tribes as well as a race of Mohammedans called Moros. These Moros are a fierce and warlike people living in eastern Mindanao and the Sulu Archipelago who for centuries terrorized their neighbors by their ruthless slave raids.

The tribes of the mountains of Luzon have preserved an ancient civilization of their own. They have a well developed polytheism, with its priesthood; they have preserved their genealogies and their social customs, and built pyramid-roofed wooden dwellings on pillars equipped with rat-guards. The United States gained its first friends among them by the good works of their doctors, who achieved cures in the face of superstition. In time the doctors introduced teachers; and no less an individual than the late Dean C. Worcester, as Secretary of the Interior, initiated inter-tribal feasts and the sportsmanlike tug of war contests which have persuaded many a one-time head-hunter to the ways of peace.

Cool, Pine-girt Baguio

Five thousand feet above the sea in the pine-clad hills of northern Luzon lies a country swept by breezes that keep the temperature around 65 degrees by day, while by evening one enjoys a wood-fire. This is the setting of Baguio, which has been made into a summer capital and health resort. The first men to visit the spot sailed to San Fernando and rode thence by horseback; but under Judge Taft's Commission a so-called Benguet Road was built, at great cost, to follow the Bued River. This road met successive floods and landslides, until in 1911 there came a cloudburst that swept a part of the mountainside into the valley, blocking the river until it rose 150 feet. When it went roaring seaward it carried with it great trees and new steel bridges. Though that road had been reconstructed, a new one has been made over the ridges. The city is built on model lines. It has a permanent population of over eight thousand and recently during one year received sixty thousand visitors.

Good Roads, Schools and Health Work

At the close of the World War there were not many miles of genuinely good roads in all the islands put together, although there were indifferent roads and horse trails. Since then thousands of

miles have been built. These roads open new lands to homesteaders, who come in motor trucks as well as in covered carabao carts; and homesteaders are highly desirable in a land where only about one-eighth of the area is cultivated. The educational system has, within a quarter century, reached well over a million boys and girls. Good roads, education and sanitation have been perhaps the three outstanding achievements of the American administration.

As for public health work, that with the lepers has doubtless been most important because of the grave character of the disease. In 1899 there must have been ten thousand lepers at large on the islands. The dreadful looking objects were often stoned to the outskirts of the forests or to the sand-bars of the sea, where they lived upon such doles of rice and stale fish as were thrown to them; but worse, numbers of them mingled with the throngs about the market places or whined for alms at the doors of churches, and their touch exposed constant recruits to their hopeless ranks.

Exiles Enjoy Motion Pictures

Then came Dr. Victor G. Heiser, Commissioner of Public Health, who built for these lepers a model town on an island, with even a currency of its own. He then had photographs made of its houses and public buildings, sent doctors about the country to lecture and show these pictures to prospective patients, with the promise of medical aid and complete freedom to become a self-governing community. When finally a ship was sent among the islands to collect its first load of patients the seamen struck. Dr. Heiser himself manned the vessel with two helpers and took them to Culion. To date, more than two thousand lepers have been dismissed from this colony as completely cured, and new research laboratories and a lepro-sarium are under construction at Cebu. In the meantime, the exiles on Culion live a surprisingly ordinary life among themselves.

They even have motion pictures. When the pictures are shown in Colony Plaza,



Hill

FLOATING COCONUTS DOWN THE RIVER TO MARKET AT MANILA

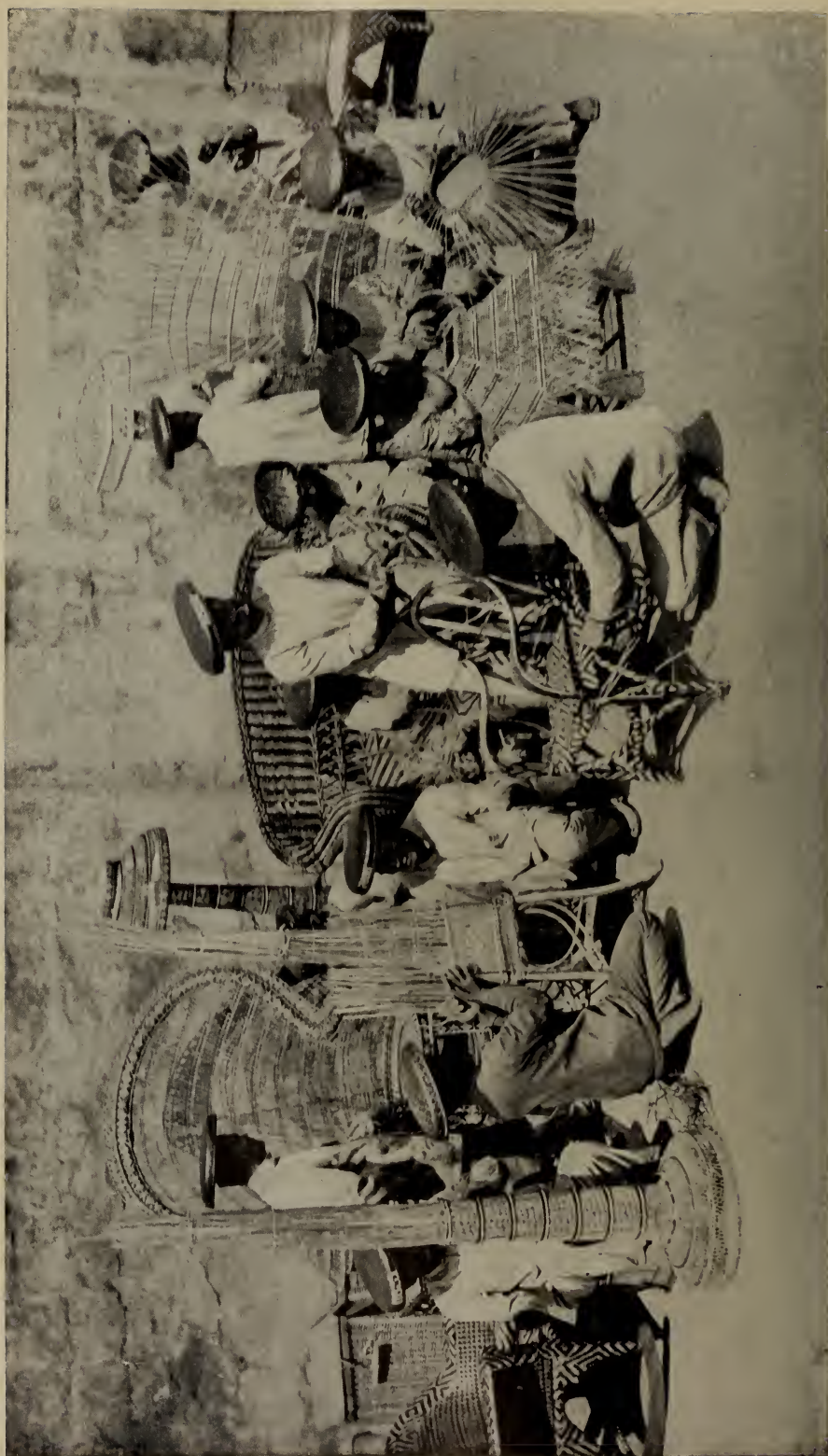
Coconuts are an important item in the trade of the Philippines, for they provide copra, oil and coir fibre. In Luzon Island the unhusked nuts are formed into great rafts and floated down the river to Manila, the capital city of the Philippines. Like the Chinese, many Filipinos live all the year around upon the water in covered boats.



© Ewing Galloway

UNGAINLY BEAST OF BURDEN THAT FILIPINOS PUT TO MANY USES

The carabao, or water-buffalo, is easily tamed, and though slow, is very strong. It will not work for more than two hours, however, without a mud bath. The carabao is used as a draught animal, and the female provides milk from which the Filipinos make a kind of butter called ghi. The flesh is eaten, and the hide makes good leather.



SPLIT BAMBOO CANES ARE DEFTLY TURNED TO MANY Chairs and lamp shades, sofas, work-baskets and household furniture of all kinds are made of bamboo in the Philippines. The Tagalogs are perhaps the most civilized natives of the islands. They have been Christian for centuries. The Filipinos are a strange mixture of races,

USES BY THE SKILLFUL FINGERS OF FILIPINO WORKERS for their ancestors belonged to the Visayan, Tagalog and various other tribes. Then, in the days of the Spanish conquerors and after, these people, who had even then considerable culture, intermarried with the Spaniards. There is also a percentage of Chinese blood in their veins.

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every man, woman and child on the island comes in gala dress to wait until the sky is dark enough for the out-of-door exhibition. When one of their favorites, like "Carlocito" (Little Charlie) is shown, these "untouchables" laugh and applaud, and demand to see it over and over, till dawn fades the moving shadows and they must return to reality. Much health work achieved for the islands has been aimed at malaria as well as leprosy.

The educational system of the islands has developed rapidly. One unique venture is the School Republic at Muñoz, north of Manila, where boys learn agriculture by running their own farms (under instruction), and while there elect their own officials, have their own police and run their own bank and store. There is Silliman Institute where natives show their command of English by giving Shakespearean plays. Camp John Hay has been a civilizing influence. Now, owing to both education and free trade with

the United States, there has come to be an enormous increase in wages paid Philippine labor, and fully a third of the people are laborers. Indeed, it is estimated that the islands are producing six times the wealth they did in Spanish days.

Mindanao, according to native legend, was once inundated so that the mountain-tops were peopled with refugees. But three terrible monsters were ever on the alert to catch and devour them. Of these, Kurita had more legs than an octopus, Tarabusaw was a giant and Pah was a bird so huge that it laid eggs as big as houses, and when it spread its wings, they covered the sun and darkness fell upon the land. But in time two heroes, the rajahs Sulayman and Indaraputra, came forward, and after various adventures, slew the monsters. These heroes were the ancestors of the Moros.

The tourist sees the Moro police of Zamboanga wearing the Mohammedan red fez and a green sash with the khaki



HATS TO SHADE DARK FACES FROM THE TROPIC SUN

These two Filipino girls are busily employed plaiting hempen fibres into hats. On the ground before them we can see the block they use to shape the crown, and on each side of it two nearly finished hats that require only binding around the brim. The men wear a very different type of sun-hat—one with no crown at all.



BAMBOO GROVES are found growing with tropical luxuriance on all of the Philippine Islands, and the strong though slender canes are turned to many uses by resourceful natives. Here a tribesman of Mindanao, the large southernmost island of the festoon that reaches from Borneo to Formosa, has built this flimsy hut of the building material at hand.



HOUSES ON PILES are common in the Philippines, for the stilts not only raise the frail native dwellings above high water line but protect them from invasions by wild hogs and timaraus. The typical village shown above is located on Luzón Island, just outside Manila. Malaria-bearing mosquitoes breed in the stagnant water and the native death toll is high.



Philippine Bureau of Science

WHERE HOUSES ARE BUILT FOR SAFETY ON THE TOPS OF TREES

In western Mindanao, along the Agusan River, dwell the Manobo tribe, who were once all slave-raiding pagans, though many of them are now Christians and have taken to wearing European attire. A house built high in the air like this may seem unsafe to us, but in this wild country a house on the ground would be too easily entered by hostile tribesmen.

uniform, and each is armed with a two-foot bolo. The town is built along a canal in a coconut grove, with several plazas including one named for General Pershing, and streets lined with banana plants.

Cebu is an interesting city by reason of its mementoes of Magellan. The Church of St. Augustine contains a wooden image, black with age, of the Christ Child said to have been carried on all his voyages; while near by, a black twelve-foot cross in a pavilion is vener-

ated by Filipinos as the spot on which he read his first Mass. Here candles are kept burning and coins are thrown through the bars of the gates to pay for them. For Magellan had made converts, before his martyrdom, of the rajah of Cebu and eight hundred of his subjects. Now as you approach the city over the blue waters of the archipelago, you see great radio towers rising above the rooftops, and mingling with the motor cars are clumsy two-wheeled carts drawn by

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carabao, and trains of pack-mules loaded with huge bags of dried coconut meat.

There are many factories throughout the islands for making coconut oil, and during the fat shortage of the World War this oil came to be prized. In places, as at Cebu, there are salt-beds along the shore where sea-water is evaporated till it becomes white crystals. In 1920 the first centrifugal sugar-mill was established on the island of Mindoro, and since that date millions of dollars have been invested in the sugar industry. The extensive virgin forests are one of the most important natural resources of the islands, though the methods of lumbering are primitive. One sees lengths of giant logs being hauled over the rough ground by carabao. Much of the bamboo is used for paper-making. Hat-

making is a home industry, as is the weaving of piña, the pineapple tissue of such delicacy that when threads are drawn, it looks like lace, and the jusi, a glossy combination of silk and pineapple fibre. The abaca (Manila hemp) is the strongest fibre known and hemp is an important crop. The Philippines are one of the leading tobacco-raising countries, and the best tobacco grows in the Cayan Valley of Luzon on tiny plantations averaging but one acre each, though of these there are over twenty thousand. The small island of Basilan has been planted to Brazilian rubber. As for the cultivation of rice, occasional mechanical threshers are seen in the islands; these are owned by neighborhood groups and passed from farm to farm as each successive crop ripens during the harvest season.

PHILIPPINE ISLANDS: FACTS AND FIGURES

THE COUNTRY

The largest island group in the Malay Archipelago; composed of 7,083 islands and islets. Bounded on the west and north by the China Sea, east by the Pacific Ocean, south by the Celebes Sea and the coastal waters of Borneo. Total land area, about 115,026 square miles. Luzon, the largest island, has an area of 40,814 square miles. The total population in 1918 was 10,314,310.

GOVERNMENT

Chief executive is the Governor-General, who represents the sovereign power of the United States; cabinet of 6 members, 5 of whom are Filipinos. Legislative body is made up of a Senate (24 members) and House of Representatives (94 members), all elective, except 2 senators and 9 representatives appointed by Governor-General. Council of State with the Governor-General as president links the executive and legislative branches of the government. For administrative purposes the country is divided into 37 regularly organized provinces and 11 special provinces, each with a provincial governor as chief executive.

COMMERCE AND INDUSTRY

Agriculture is the chief industry; principal products are rice, Manila hemp, coconuts, sugar-cane, corn, tobacco and maguey. There are about 39,285,220 acres of commercial forests furnishing cabinet woods, gums and resins, vegetable oils, rattan and bamboo, tan and dye barks. 15,243,000 head of livestock in 1926. Gold is mined in commercial quantities. Manufacturing confined largely to preparation of agricultural products for market. Chief exports: sugar, hemp, coconut oil, copra, to-

bacco products, embroideries and shredded coconut. Chief imports: cotton goods, iron and steel manufactures, meat and dairy products, wheat flour and silk goods.

COMMUNICATIONS

Overseas trade carried mainly by British and American vessels. Total railway mileage in 1927, 788; in 1928 there was 692 miles of cable, 8,292 miles of telegraph line, 444 telegraph offices, including 40 radio stations. Total length of roads, 7,076 miles.

RELIGION AND EDUCATION

The dominant religion is Roman Catholic; many other denominations are represented; 443,037 Mohammedans in the districts of Mindanao and Sulu. Education is free, secular and co-educational; 7,361 public schools with 1,107,589 pupils in 1927. Many private and special schools including normals, trade schools, agricultural schools and nursing schools. University of the Philippines, state-supported, had 7,533 students in 1927.

CHIEF TOWNS

Present populations: Manila (capital, Luzon Island), 285,306; Iloilo (Panay Island), 65,248; Cebu (Cebu Island), 83,980; Laoag (Luzon Island), 40,625; Zamboanga (Mindanao Island), 45,567.

ISLAND OF GUAM

Designated as a United States Naval Station for the purposes of government and protection. Situated at the southern extremity of the Mariana Archipelago in the Pacific Ocean, east of the Philippine Islands. Total area, 210 square miles; population in 1928, 17,654.



PHILIPPINE BUREAU OF SCIENCE

THIS MANDAYA WARRIOR has long hair dressed like a woman's. He comes from southwestern Mindanao. The brown race of the Philippines is believed to have come from the south in successive migrations which date from pre-historic times. Occasionally mixed with Spanish or Chinese, these Malays are divided into twenty-three tribes, varying in culture.



PHILIPPINE BUREAU OF SCIENCE

THIS ILONGOT CHILD is more attractive now than she may be a few years hence, for her people are extremely short. Many have a trace of Negrito blood. They live nomad lives in the forested mountains around Nueva Viscaya, Luzón, securing game by throwing stones or shooting arrows, and climbing trees for fruit and nuts. At one time they were head-hunters.

SUNSHINE ISLES AND SAVAGES

The Untamed Life of the South Seas

One is likely to think that where nature has provided sunshine and delightful scenery life must be at its best. But the human animal often degenerates in such surroundings. It is not the absence of any need to struggle for food and shelter that raises man above the beasts, but rather his need to employ brain and brawn devising means to subsistence. This law of life would account for the low state of the civilization of the South Sea Islands—Fiji, Samoa, Tahiti, Tonga and the Marquesas, Papua and less known ones.

THE Lotus Islands, the Islands of Delight—by these and other names the beautiful isles of the South Seas are widely known. And, certainly, no such description would seem to be too extravagant, for many of them are accounted to be among the loveliest spots on the face of the globe. Strung out across the Pacific Ocean, close to the Equator, they enjoy perpetual summer.

Of the principal groups of South Sea Islands there are two kinds. Some built up by volcanoes, like Tahiti, have mountains, rivers, waterfalls and grand and rugged scenery; others, such as the Paumotu, are of coral formation and very low-lying. While these lack the grandeur of the larger rocky islands they have a charm all their own. Viewed from a distance, only the waving tops of the palm trees greet the eye; then, as the vessel approaches, is seen the outline of the coral reef which forms the boundaries of the islet with its enclosed lagoon. Every traveler to these Eastern Pacific atolls tries to find a fresh phrase in which to convey their beauty.

For geographical purposes the South Sea Islands are classed in three groups: Polynesia ("many islands"), Melanesia ("black islands") and Micronesia ("small islands"). In the first named are included Fiji (north of New Zealand), Tonga, Samoa, Tahiti, the Paumotu, the Marquesas and Hawaii. (The last named will be treated in the same volume as the United States of America.) To the second belong New Guinea, or Papua, one of the two or three largest islands in the world, and the less civilized islands of the Bismarck Archipelago—New Britain,

New Ireland and the Admiralty Islands—the Solomons, the New Hebrides and the Loyalty Islands. In the third group we have the Caroline, the Marshall and the Gilbert Islands. While these names are useful enough, we may distinguish between the main groups in a simpler way.

Natives who are styled Polynesians are good-looking, often even handsome, with brown skins and either smooth or curly hair. Their Melanesian brothers, to the westward, are ugly in type, often repulsively so; they are of a darker color and have frizzy hair. It is to this last-mentioned feature that the Papuans owe their name. The native of New Guinea, the large island just north of Australia, boasts a head of hair that resembles a mop; the Malays christened him "pupu-wah," which means "frizzled," and the name has clung to him.

The best known of these islands of the South Seas are perhaps the two hundred or more of the Fijis, though only eighty are inhabited. These offered themselves to the British government in 1874. They are among the most beautiful of all the South Sea Islands. They are further interesting because the Fijians themselves are of two races; indeed, they form a link between the Papuans and the Polynesians. Physically, they are a fine people, tall and strongly built. In color their skins are dark, and they usually have the frizzy hair of the Papuan, as may be seen by our picture of a Fijian belle combing her hair. In the case of children the heads are generally shaven, with just a few tufts of hair left growing.

That the islanders in former days were cannibals and had a reputation for fe-



T. J. MCMAHON

OCEAN ISLAND is one of the Gilbert group, which lies across the Equator and together with the Ellice Islands forms a colony under the rule of Great Britain. Like all South Sea Islanders, the inhabitants love to dance. Here their wide skirts, put on especially for the ceremony, are

of palm leaves and their sugar-loaf hats of plaited grass, while feathers decorate their wands. The island—only six miles around—is yet a valuable possession because of the phosphate of lime it exports. This mineral is widely used as fertilizer for crops.



T. J. MCMAHON



YORK & SON

TAPPA AND KAVA are two native names connected with industries peculiar to many of the islands of the South Seas. "Tappa" is a cloth made from the bark of the paper-mulberry, and in the upper photograph we see it being beaten out on wooden blocks. "Kava" is a favorite drink made from the root of a pepper plant which these women are shredding.

rocity is only too true. Human sacrifices were frequent, for the savage mind believed that when a man was killed and eaten, such qualities of courage, strength and cunning as he possessed would pass into the bodies of those who partook of his horrid feast. The human flesh thus eaten was known as "long pig." Many victims were also slain on notable occasions through superstition. At the launching of a new war canoe such a sacrifice was held to bring good luck; on the death of a chief a number of slaves would be killed in order that he might be well served in the after life.

College for Fiji Islanders

With the coming of the missionaries these barbarous customs gradually ceased. From being a bloodthirsty savage the Fijian has become quite a reformed character. To-day he is a peaceable, if not actually gentle chap, with even a leaning toward foppishness in dress. His children attend school and many of the young people of the Fiji Islands go to distant colleges to be trained as teachers and clergymen. Nowhere in the South Pacific has there been such a complete and rapid change from barbarism to civilization as in these islands.

Missionary enterprise has, indeed, been active throughout the South Sea Islands. Ministers of all creeds have gone fearlessly among the wildest tribes to carry their message; many of them have suffered death at the hands of the natives. These workers in the mission field found that the native religion was based on what is known as animism; the people believed that all things, whether human beings, beasts, birds, or trees and stones, had souls which were in some way able to do them either friendly or unfriendly services.

Samoa Islands Divided

During the cotton famine that followed the Civil War, a Hamburg merchant sent men out to Samoa in the middle of the Pacific Ocean to start cotton plantations. But the United States had since 1839 enjoyed the exclusive right to maintain a

naval base in the fjordlike harbor of Pago Pago, on the southern coast of Tutuila, besides which Australia and New Zealand were pursuing an important trade with the islands. Great Britain therefore conferred with Germany and the United States in 1880 and provided a government for the Kingdom of Samoa, but in 1889 they decided to divide the islands, and Tutuila and others fell to the lot of the United States, while Upolu and finally Savi'i (which Great Britain did not want) went to Germany. The League of Nations assigned to New Zealand the administration of German Samoa.

It was a king of these islands, Malietoa, who befriended the missionary, John Williams. It was these gentle natives among whom Stevenson made his home and to whom he was Tusitala, "the storyteller," and a loved friend.

If we sail across from the Fijis, there will come a point, when we cross the 180th meridian, east longitude, where we will wake to find it the day before. We won't mind that, for we will be too eager to reach a land where we may sit beneath a palm tree and just watch the white-caps dancing across the blue sea, while behind us stretch jungle-clad hills. Tutuila has been built by volcanic action and lies ringed about with coral reefs. At low tide one can see the branches of pink coral rising above the green of shallow waters.

Grass Mats for House Walls

The natives play and bathe in the surf, eat the fruits that grow so abundantly and build their houses by weaving branches for a roof on four poles, then tie on grass mats which can be rolled to the ceiling. The floor is usually raised two feet and surrounded by a ditch to carry off the rain, then paved with stones and pebbles, and at night covered with sleeping-mats. Oranges, bananas, pineapples and bread-fruit and of course coconuts grow luxuriantly. On Swain's Island, which was annexed in 1925, the natives pay their taxes usually in copra (dried coconut meat). The Tutuilans wave the Stars and Stripes on the Fourth of July, though the naval officers who are responsible for



Thomas McMahon

CANE FISH-TRAPS IN THE NEW HEBRIDES

On the beach of Tanna Island in the New Hebrides Archipelago, which lies between Fiji and the east coast of Australia, one may see great fish-traps of basket-work that look like the lobster pots of our own coasts. Bait is put inside and the trap is left in the sea all night. In the morning it is hauled up quickly before the fish can escape.

the conduct of the island permit the native chiefs a show of doing the governing themselves. The American taste rather balks at kava, the drink of ceremony, for it is made from a root chewed by the prettiest girls to reduce it to a pulp, after which water is added and it becomes a beverage slightly intoxicating but tasting for all the world like soap-suds.

Robert Louis Stevenson has made a

certain white villa famous, Vailima, which now is the official residence of Western Samoa. From there one climbs the steep mountain path, part of which the natives who built it call The Road of Loving Hearts, to the peak of Vaea where "R.L.S." lies buried. One finds on his tombstone the familiar verses ending:

"Home is the sailor, home from the sea,
And the hunter home from the hill."



C. W. COLLINSON

AN ISLAND CHIEF in the Solomons wears with pompous pride a necklace of porpoise, shark and dog teeth and upon his head a polished disk of tortoise shell.



H. J. SHEPSTONE

SOLOMON ISLANDERS decorate their high-prowed war-canoes with mother-of-pearl and cowry shells and a carved figurehead designed to ward off danger.



Thomas McMahon

A NURSERY FOR SEEDLINGS OF THE COCONUT PALM

The islands in the Pacific are the best places for the coconut palm, which prefers to grow near the sea. In cultivating a nursery the nuts are planted in mud, or sand and seaweed, and watered until a shoot appears. When this shoot has grown to about the size seen above the nut is transplanted. In about six years the tree begins to bear coconuts.

Tonga, or the Friendly Islands, is a Christian community. The natives are fine physical specimens, stalwart and good-looking, with skins of a bright copper brown and fair, curling hair. They are particularly fond of boxing and wrestling. About the end of the nineteenth century, these Tongans asked to be placed under British protection.

Of the three groups of Tonga Islands, one is of coral formation and one is high and mountainous, and there are active volcanoes on Tofua and Kao. A native queen has succeeded her father. Thanks to British and missionary efforts, there is a Tonga College, free dental and medical service, and at the capital, Nukualofa, a wireless station and a telephone system. About one ship in four weeks sails to New Zealand via Fiji and Samoa.

Eastward of Samoa lie the Society Islands, so named by their discoverer, Captain James Cook, in honor of the

Royal Society which had sent him. Between 1768 and 1779 Cook made voyages of discovery which, broadly speaking, brought Polynesia and Micronesia to the knowledge of traders and explorers. He finally met his death in the Sandwich Islands, as Hawaii was formerly called. The principal of the Society Islands is Tahiti, a French possession, the Otaheite of the famous explorer. The natives are tall and robust, dark-skinned, with black curly hair; but they are not so fine to-day as their ancestors, those magnificent men who greeted Captain Cook on his first landing. For like so many Pacific people the Tahitians are decreasing in number, partly because of the diseases that too frequently make ravages among them.

Tahiti is a land of natural loveliness, richly feathered with palms and orange trees, its mountains covered with the umbrella fern and dense thickets of guava. This is "the Pearl of the Pacific," or, as

SUNSHINE ISLES AND SAVAGES

a native bard once styled it, "Great Tahiti the Golden."

The Tahitian is a light-hearted, laughter-loving being with a fondness for dancing and singing. Parties of several hundred will assemble for "himenés" or native singing festivals in which their voices are really tuneful and pleasing. The Tahitian also loves to play some musical instrument. Says one unappreciative writer: "To see a great fellow, six feet high, sit down on the sand under the palms at high noon and go 'twangle, twangle' on a jew's-harp; to see half-a-dozen fo'c'sle hands on a small pearling schooner in a dead calm, sitting by the cookhouse and drinking strong black tea, while they make night hideous with long drawn-out wailings on an old wheezy concertina—such things are enough to make the gravest man crow with laughter."

Papeete, the chief town of Tahiti, is half French and possesses a good normal school. At its docks touch the steamships of the monthly service between San

Francisco, Australia and New Zealand, and from its wharves the Society Islands export phosphates, copra and mother-of-pearl. Sailing boats also ply between Papeete and the various islands of the French establishments in Oceania.

Besides Tahiti, one must mention Moorea, the Paumotu group (which form two parallel ranges), Tubuai, and Rapa and the Leeward Islands (Iles sous le Vent). Under the French all of these have united to form one colony.

The Tahiti Islands (French Oceania) call to mind the story of a strange adventure. On Captain Cook's second voyage he had, as sailing-master of the *Resolution*, an English sailor, William Bligh, who because of his discovery of breadfruit was called "Breadfruit Bligh." He was later sent to take breadfruit trees from the South Sea Islands to the West Indies. The voyage involved a stop-over of six months at Otaheite which his men greatly enjoyed. When they set forth, in April, 1789, in the *Bounty*, a mutiny



C. W. Collinson

A SOLOMON ISLANDERS WAR-DANCE WITH BARBED SPEARS

War-dances keep the Solomon Islander happy when there is no one to fight. Each man paces forward and back, feints with his spear and guards with his shield, growling viciously all the time. The spear heads are made of the barbed and often poisoned bones of large fish. Under British rule there is now plenty of dancing, but very little real fighting.

broke out near the Friendly Islands and Bligh himself, with eighteen of his men, was set adrift in a launch. Day after day they tossed in an open boat, drenched by storms and tortured by hunger and thirst; but after four thousand miles of such progress they reached Timor in the Malay Archipelago. In the meantime the leader of the mutineers, Fletcher Christian, returned to Tahiti with twenty-five men; but the year following headed a party that included eight Englishmen, six Polynesian men and twelve native women and sailed to the sheer black lava cliffs of Pitcairn Island, then burned the *Bounty*.

Mutineers' Haven a Wireless Station

Here, a hundred miles south of the Paumotu Archipelago, someone found the survivors in 1800, by this time reduced to one white man, Alexander Smith, called John Adams, who was trying to train the half-breed people to the best of his ability. Later seamen who touched on these shores found a tiny colony of Seventh Day Adventists who cultivated beans, pumpkins and other produce and let their goats and chickens run wild. On its two square miles of area there is some timber, but no rivers though rain is abundant. The island had first been sighted in 1767 by a midshipman with Philip Carteret, and at that time was found to be uninhabited, though stone hatchets were found. This island has lately been chosen as a good location for a wireless station.

Still farther westward in the Pacific are found the Paumotus, the Pillar or Cloud Islands of early voyagers, the Drowned Archipelago of Captain Cook, variously called the Low Archipelago and the Dangerous Isles. Some eighty in number, these atolls, or coral islands, are not the least beautiful of natural phenomena in the southern ocean. The islands are low-lying, as has been said; the highest of them rises scarcely more than thirty feet above high water mark; but for quiet charm they are without a parallel. Some are circular in form, others are oval or of a horseshoe shape,

but all boast the same feature: the blue lagoon encircled by a coral reef edged with tall palms. Indeed, the Paumotu atolls are a romance of Nature. They have slowly been built up by generations of coral polyps on the summits of submarine mountains.

Lone Traders in Atolls

Not all the Paumotus are inhabited. On more than half of them there is no life save that of sea birds and land crabs. Upon the larger islets a fairly deep soil has formed, and here the breadfruit tree, the coconut palm and the pandanus, together with the banana, flourish. From the dried coconut meat (copra) coconut oil is obtained. On many an atoll is to be found a lone white trader who employs scores of Paumotuans in collecting the nuts from the palm trees and chopping them open to dry.

It is the coconut palm which the robber land crab seeks out for his depredations. This native of the atoll is a monster crab, as much as two feet long. Its strength is remarkable, and it will bite off eight or ten nuts at each ascent of a palm. How the Paumotuan outwits this enemy is ingenious. When a native finds that a crab has made its way up a palm, he prepares a kind of wreath or girdle of clay and leaves or grass. With this he climbs some distance up the tree and plasters it firmly around the trunk. The crab comes down the tree backward, and when he feels the clay below him he takes it to be the solid earth. As a result he loosens his hold of the tree and falls to the ground below, where, if he be not already done for, he is quickly pounded to death, with a club.

Dive for Mother-of-pearl

For all that these South Sea atolls are so beautiful, the Paumotuan has a monotonous time of it upon his white coral beaches. His chief and often sole occupations are the collecting of copra and diving for pearl oysters. The latter, if they do not yield real pearls, provide the mother-of-pearl that is so valuable in commerce. The islanders are expert divers,

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scorn diving-suits and fearlessly descend into the clear, shark-haunted waters.

By nature the Paumotuan is quiet and serious-minded, very unlike the joyous-hearted Tahitian. This is the result of his surroundings. First, his range of food is small: the usual diet is coconuts and fish. Every lagoon is stocked with fish beyond number. In addition, at certain seasons, there is the fear of the cyclones which sometimes rage through this part of the ocean. Whole populations of islands have been wiped out at times by these awesome visitations and their houses and other possessions completely destroyed.

The Marquesas Islands are a Polynesian group which belongs to France, the largest of which is Nukahiva. Here the tropical trees and blossoming shrubs perfume the air. A plant peculiar to the Marquesas is the cassi, a bush bearing

yellow flowers. This sweet-smelling shrub blooms every month of the year, and the fragrance of its pollen, which is blown far out to sea, can be smelled long before land is touched.

In 1842 France assumed a protectorate over the Marquesas, and in 1853 annexed the New Caledonia Islands with the idea of establishing a penal settlement.

It was in these islands that tattooing—an art practiced widely throughout the Pacific—reached its artistic height. The Marquesan has always been a splendid type of physical fitness. In times past he was among the most warlike of the islanders, even addicted to cannibalism, but to-day he lives peaceably with his neighbors. As a warrior he delighted to tattoo his body from head to toe, and nowhere else were such elaborate patterns devised.

The chief professors of the art, the



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SEA-PLANE AND FLYING BOAT ASTONISH A PAPUAN VILLAGE

Papua is the east or British portion of the great island of New Guinea, just north of Australia. Many of the villages are built on piles over lagoons. One day an exploring party visited the coast in an aeroplane with a motion picture camera. The natives were at first terrified, but curiosity soon mastered their fear, as is evident above.



W. N. Beaver

CAT'S CRADLE IS ONE OF THE OLDEST GAMES IN THE WORLD

Anthropologists have found that children play cat's cradle in almost every country in the world, by no means excepting the South Sea Islands, Africa and Australia. This Kiwai lad lives beside the Fly River in New Guinea among some of the wildest savages in the world; but he knows several intricate forms of the game.

"tuhukas," belonged to a guild of a most exclusive kind and ranked next to the chiefs. At festivals an assembly used to be held that was much in the nature of a country fair. People came in from great distances to feast and make merry, and be tattooed, or to have repairs done to their previously decorated skins. Often the full adornment of a man was not complete until his thirtieth year.

Under French rule, however, tattooing has been stopped.

In the Marquesas Islands the "tapu" convention has ever been strong. A tapu (from which we get our word "taboo") is a prohibition. For reasons often of mysterious origin, it was tapu for a woman to enter a canoe, to wear red or dark blue, to smoke inside a house or to carry a mat upon the head, and so on.



THIS FIJI GIRL ENJOYS THE LUXURY OF A FINE MIRROR

Fiji Islanders have extraordinarily curly hair and it takes a great deal of combing. The combs used are made of wood and the teeth have to be six inches long. The girl in the photograph was taken on a trip to England, but when she returned she sensibly preferred to keep to her native way of dressing, which is best suited to the hot climate.

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Women might not eat in men's company. Certain animals and fish were tapu—that is, no one was allowed to kill and eat them. As a rule tapus were regarded as sacred, and few people were foolhardy enough to risk breaking one. In the case of the canoe tapu, this was ultimately set at defiance by some daring women, and the prohibition, once broken, was never put in force again. Similarly these brown-skinned suffragettes obtained the freedom to eat bananas and pork, neither of which had Marquesan women tasted for the past thousand years.

In that quarter of the Pacific known as Melanesia, where the natives are darker in hue and less civilized by contact with the white races, the two island groups of most consequence are New Guinea and the Solomons. New Guinea is a vast island, one of the several largest on the globe, a half of which belongs to the Dutch East Indies, treated in another article. By an agreement between Germany and England in 1884 these two

countries divided the other half of New Guinea, and Australia administers British New Guinea (Papua), as well as the late German New Guinea which it seized in 1914.

Papua is the southeastern part of New Guinea. Here the tribes dwelling in the large settled areas have been induced by the missionaries to settle down and live peaceably with one another, and white planters raise coconuts, rubber and sisal hemp. A regulation strictly enforced obliges native land-holders to plant coconuts or other economically useful trees if the soil permits, and communal plantations have been established under European agricultural teachers. Native children are also obliged to attend schools where English is taught. Moreover, a government anthropologist is employed and a family bonus is paid to native mothers of four or more children under sixteen. Gold and copper-mining are important industries, and indications of oil have been found over a large area.



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STEAMER IN HARBOR AT PAPEETE, TAHITI'S PORT OF ARRIVAL

The fourteen Society Islands are the most westerly of the French settlements in the South Seas. Of these, Tahiti, in the Windward (eastern) group, is the largest. Its chief town, the seaport of Papeete, is the seat of the administration of the French colony.

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Horses and cattle are among the exports loaded every month on the steamer from Port Moresby to Sydney. The natives raise yams and taro for their own use and build long houses, sometimes on piles, especially along the coast, with often a community-house where gatherings are held and guests accommodated.

In remote portions of the mandated territory of northeastern New Guinea, cannibalism has not been entirely wiped out and blood feuds are sometimes carried on for generations. The high ranges of the interior are very little known, for the coastline presents few good harbors, the climate is hot and the rainfall excessive. Native children are recruited for the plantations. The missionaries and traders hope to civilize these people in time.

The British High Commissioner of the Western Pacific has jurisdiction over a number of islands, including the Southern Solomons and the small groups in Melanesia, Pitcairn Island (before described) and the Gilbert and Ellice Islands Colony

(with headquarters at Ocean Island), important because of its phosphates, which have been worked by a British company since 1921. The Gilbert and Ellice Islands Colony includes Christmas Island, discovered by Captain Cook in 1777, (with headquarters at Ocean Island), in the largest atoll in the Pacific. It has a circumference of a hundred miles. Its population, however, like that of many of the bewildering number of South Sea Islands, consists of several white men and enough natives to work the coconut plantations.

The British Solomon Islands, a protectorate which covers a considerable area, includes Guadalcanar, Malaita, Ysabel, San Cristoval, New Georgia, Choiseul, Shortland, Mono (or Treasury), Vella Lavella, Ronongo, Gizo, Rendova, Russell, Florida, Ronnell and other individual islands, besides the Lord Howe Group or Ontong Java, the Santa Cruz Islands, Tucopia and Mitre Islands and the Duff or Wilson group. While rub-



Sir Basil Thomson

TURTLES FOR THE TABLE OUTSIDE A FIJIAN GRASS HOUSE

Great turtles swim in the seas around the islands of Fiji and come up on to the beaches to lay their eggs. Turtle meat is a favorite dish with the islanders. The best portions are the greenish jelly from the back and the yellowish-white flesh from the stomach.

SUNSHINE ISLES AND SAVAGES

ber grows well on many of the islands and the natives also collect ivory nuts, the seeds of certain palms which are so hard that buttons can be made of them, it is copra which provides them with the goods they cannot produce themselves.

The Solomon Islanders have had an unenviable reputation for fierceness. Sometimes meetings are held at which the tribesmen writhe and yell in chorus, with rattles on their spears. None the less, traders and missionaries have now obtained a firm footing there. While, like the Papuans, they wear little clothing, the Solomon natives are fond of ornaments. A chief, for instance, may wear a necklace composed of the teeth of sharks and dogs, earrings, bracelets and anklets, while with women tattooing is the height of fashion. Another characteristic of these islanders is their love of dancing.

As becomes a warlike people, the canoes of the Solomons are a special pride, their beautifully decorated sides and prows making them distinctive. In the island of Malayta the war canoe is sometimes more than an object of beauty and curiosity, for here live the wildest natives of this group. They are still cannibals.

The peoples of the New Hebrides, New Britain, New Ireland and the Loyalty, Marshall and Gilbert Islands are less friendly to strangers than are the Poly-

nesians. They are also more forbiddingly ugly in appearance, and their customs are generally debased in character. Pigs are the common currency, by which even a wife may be purchased. Since the end of the nineteenth century the New Hebrides have been divided between British and French rule. The larger of this group are Espiritu Santo, Malekula, Epi, Ambryon, Efate or Sandwich, Erromanga, Tanna and Aneityum. There are active volcanoes on Tanna, Ambryon and Lopevi, and earthquake shocks are such an everyday occurrence that no one pays the slightest attention to them. There are not enough natives on all these islands put together to make one good-sized town and, despite missionary efforts, cannibalism is still practiced in several of the islands—Malekula, Santo and Pentecost. The port of Vila, however, sees over a hundred vessels a year enter, for there are several active French and British trading companies.

Nauru, twenty-six miles south of the Equator, finally, is a circular atoll surrounded by a reef of such forbidding character that there is no anchorage along its coast. But the plateau that rises inland is rich with a high-grade phosphate worked by one big company which employs both natives and Chinese, and since 1913 there has been a wireless station.

SUNSHINE ISLANDS: FACTS AND FIGURES

GREAT BRITAIN

Fiji Islands

A group of 250 islands in Melanesia (about 80 inhabited). Total area, 7,083 square miles; 1927 estimated population, 173,836. Area of Viti Levu (the largest island) is 4,053 square miles. British colony; administered by Governor who is also High Commissioner of the Western Pacific; Executive Council of 8 members; Legislative Council of 21 members with Governor as president. Chief exports: sugar, copra, bananas, trochas shell, molasses; chief imports: textiles, flour, machinery, hardware and oils. 4 wireless stations. Government and mission schools. Population of Suva, the capital, 1,741.

Tonga (Friendly) Islands

Three groups of islands in Polynesia; approximate total area, 385; 1926 estimated population, 27,048. British protectorate since 1900; Queen and Legislative Assembly of 23

members; financial administration supervised by British Agent and Consul. Chief product and export is copra; imports are drapery, flour and other foodstuffs. Natives are Christian; free public education. Capital, Nukualofa.

Gilbert and Ellice Islands Colony

Several groups of islands in Polynesia and Micronesia, formerly British protectorates. Annexed as a colony in 1915; administered by High Commissioner of the Western Pacific through a Resident Commissioner with headquarters on Ocean Island. Population of colony in 1921, 29,897. The most important islands are: Ellice Islands: area, 14 square miles; population, 3,582; Gilbert Islands: area, 166 square miles; population in 1926, 23,410; Ocean Islands: 1926 population, 2,876; Fanning Island, Washington Island and Christmas Island (leased to an agricultural company). Chief exports: phosphate (found on Ocean Island) and copra. Public education.

SUNSHINE ISLES AND SAVAGES

British Solomon Islands

Large group of islands in Melanesia under British protection; area, 11,000 square miles; population, 150,583. Resident Commissioner with headquarters at Tulagi, assisted by nominated Advisory Council. Chief exports: copra, trochas shell, ivory nuts, timber. Education by missions. (For German Solomon Islands see under Mandated Territory.)

Small unattached islands under the jurisdiction of the High Commissioner of the Western Pacific are Ducie, Pitcairn, Phoenix group, Starbuck, Malden, Jarvis and Palmyra in Polynesia and Baker Islands in Micronesia.

New Hebrides Group

Located in Melanesia about 500 miles west of Fiji; estimated area, 5,700; population about 60,000. Jointly administered by English and French officials; French and British Resident Commissioners. 44,185 acres under cultivation. Exports: copra, coffee, cocoa, cotton, trochas, corn; imports: foodstuffs, clothing, metalwork and furniture. Regular steamship communication. Mission schools.

AUSTRALIA

Papua (British New Guinea)

Consists of southeastern part of island of New Guinea, the island of d'Entrecasteaux, the Louisiade group and small outlying islands. Total area, 90,540 square miles (87,786 on the mainland); the native population in 1928 was estimated at 275,000. Administered by Lieutenant Governor and executive council of 9 members; executive council with 5 additional members compose the legislative council. Agriculture and mining important; 61,370 acres of plantations in 1928. Chief exports: copra, gold, osmiridium, rubber; chief imports: foodstuffs, tobacco, textiles and hardware. Regular steamship service; 4 wireless telegraph stations. Education by missions, government-aided. Chief ports: Port Moresby, Samarai.

NEW ZEALAND

Cook Islands

A group of islands in Polynesia; the most important are Rarotonga, Aitutaki, Mangaia

and Savage. Total area, about 280 square miles; 1926 population, 13,877. Administered by member of Executive Council of New Zealand. Exports: copra and fruits, hats and fancy baskets.

Union Islands (Tokelau)

Comprise 5 clusters of islets in Polynesia with a total area of 7 square miles; 1926 estimated population, 1,033.

FRANCE

New Caledonia

French colony in Melanesia; area, 8,548 square miles; population in 1921, 47,505. Agriculture and mining important. 225,000 head of livestock. Mineral exports: chrome ore, nickel, phosphates; other exports: coffee, copra, cotton, guano and preserved meat; imports: wine, coal, flour and rice. Regular steamship communication. Telegraph line mileage, 921; telephone, 707. Government and mission schools. The capital, Noumea, has a population of 9,336. Dependencies are: Isle of Pines, Wallis Archipelago; Loyalty Islands, Huon Islands, Futuna and Alofi.

New Hebrides Group (see under Great Britain)

French Establishments in Oceania

A group of islands administered by a Governor with an Administrative Council. They are: Society Islands, Marquesas Islands, Paumotu group, Leeward Islands, Gambier, Tubuai and Rapa; the most important island is Tahiti (Society Islands). Exports: copra, mother-of-pearl, vanilla, coconuts and phosphates. Regular steamship service. The chief town, Papeete (Tahiti) has a population of 4,601, about half French.

UNITED STATES

American Samoa

Includes the islands of western Samoa; area, 60 square miles; 1926 population, 8,763. U. S. naval station at Pago Pago; Commandant is also Governor; native officials. Only export is copra. Government and mission schools with enrolment of 4,308 pupils.

MANDATED TERRITORY IN THE PACIFIC: FACTS AND FIGURES

The former German territory north of the Equator is now administered by Japan as mandatory (Vol. 4). Mandates for the former German territory south of the Equator are held by Australia, New Zealand and Great Britain.

AUSTRALIA

Administers under a League of Nations Mandate dated Dec. 17, 1920, the territory in Melanesia of Northeast New Guinea, Bismarck Archipelago (New Britain, New Ireland and Admiralty Islands) and the Solomon Islands. The total area is more than 84,000 square miles and the population in 1927 more than 375,000. Exports: copra, shell, cocoa; imports: groceries, machinery, textiles and tobacco. Chief towns, Rabaul, capital (New

Britain), Madang, Morohe, Aitape (New Guinea), and Kaiheng (New Ireland).

NEW ZEALAND

Administers under a League of Nations Mandate dated Dec. 17, 1920, the former German Samoan Islands, including Savaii and Upolu; area, over 1,200 square miles; population of 42,865 in 1927. Legislative Council, presided over by Administrator and advisory native council. Exports: copra and cacao.

BRITISH EMPIRE

Administers the island of Nauru under a mandate of Dec. 17, 1920. Administrator is appointed by Great Britain, Australia and New Zealand and has administrative, legislative and judicial powers. Valuable phosphate deposits.



WELL WATERED PASTURE LANDS AND PLEASANT GROVES IN THE FERTILE MURRAY RIVER COUNTRY

Those districts through which the Murray River flows afford excellent farming land, since scientific methods of irrigation have made it possible for farmers to obtain a constant supply of water from the river. Wide areas have accordingly been brought under cultivation, and grain and

fruit are grown in great quantities. Sheep and cattle are also reared. The Murray basin affords many varieties of landscape. Few places can equal in beauty this expanse of undulating, wooded meadowland, which ends in the forest-clad mountains of New South Wales.

THE ISLAND CONTINENT

In the Bush and Cities of Australia

Australia, the island continent, is larger than the United States, though smaller than Canada. Yet its population is less than that of New York or London, and four-fifths are concentrated in a belt of country perhaps a hundred miles in width along the eastern, southern and southwestern coasts, while a good half of the country is so arid and its "bush" so impenetrable that it numbers less than ten thousand people. There are rich natural resources—the forests and agricultural lands occurring in limited areas—though sheep and cattle forage over thousands of miles. There is also wealth in coal and gold mines. Though the coast is but little indented, the harbor at Sydney is one of the finest and most important in the British Empire. The exploration of this strange Southland and the settlement of the states of which the Commonwealth was formed, the work of the great sheep ranches and the native wild life, together with the progressive cities, will be the subject of this chapter.

The aborigines are treated in the one on Australia's Magic-makers.

WHEN the first European explorers reported a continent nearly twelve thousand miles away, where Christmas comes in midsummer, ferns grow as tall as trees and huge hopping animals carry their young about with them in furry pouches, people would not believe it. The stupendousness of everything Australian and the rapidity of its recent progress is equally amazing. In the early days one reached it only after months of sailing around Cape Horn or the Cape of Good Hope, and the only inhabitants were a few low-grade aborigines. To-day fast steamers take but three weeks from Vancouver or San Francisco, an air mail service links up the remotest corners of the lonely island, and Sydney has become one of the important ports of the British Empire. Yet there are but a little over six million people to an area just under three million square miles, and half of these live in the cities along the eastern and southern coasts. There are vast areas still unexplored and Northern Territory contains but four persons to every five hundred square miles. The yellow races have not been permitted to secure a foothold: it is a white man's country of an extremely prosperous and democratic character.

This dry, kidney-shaped island continent is geologically probably the oldest portion of the earth, cut adrift from the Asiatic mainland in prehistoric times. Its shoreline is remarkably regular and

its harbors are few. Great Barrier Reef off the northern portion of its east coast, perhaps the greatest coral reef in the world, makes a lane of quiet waters where pink, red and white walls of coral rise between the green inland passage and the abruptly deep blue of the Pacific. Nor are there any islands belonging geographically to this vast land mass, save Tasmania alone, close offshore on the southeast. There are no mountains of consequence except the ranges of the Blue Mountains (but two thousand feet high for the most part) which rise between the eastern coastal lowlands and the interior plateau. There is but one river system of consequence, that of the Murray and Darling rivers, which waters a belt 150 miles back from the east coast. On vast areas farming is impossible for lack of rainfall, except as the extensive artesian wells, chiefly in the eastern portion, are made to provide for irrigation. But Australia is the greatest sheep country in the world, and it has yielded nearly every known mineral, from gold to coal.

In this Southland beneath the Southern Cross, there are plants and animals found nowhere else. The tree ferns are survivals of the era before the Coal Age and there is a drought-defying tree with a trunk which expands like a bottle before giving forth its branches. There are thousands of miles of almost impenetrable "bush" largely composed of varieties of eucalyptus—a tree that sheds its bark in-



SURVIVAL OF A BY-GONE AGE

The duck-billed platypus, which is found in Australia and nowhere else in the world, is surely the most grotesque of beasts. It is a mammal, yet lays eggs and has web feet and a bill like a duck's. It lives in burrows near streams.

stead of its pendant gray-green leaves—and there are jarrah and karri trees with wood hard enough for paving blocks. One finds the emu, a wingless bird nearly as large as an ostrich, and the platypus, a duck-billed mammal that lays eggs and carries its young in a pouch. The explorers used to hear a bird, the kookooburra, which they named the “laughing jackass” because its almost human laughter seemed to mock at them from the woods. There are also bearded lizards and nine-foot pythons, to say nothing of wood-devouring ants from which people protect their houses by building them on metal piles. There are mound-making turkeys in the treeless regions and little ant-eaters with bushy tails.

The kangaroo and other marsupials or pouch-bearing mammals are typical of Australia and comprise two-thirds of its fauna. These range from the large, swift-jumping kangaroo of the plains, which fights with a vicious kick, and the smaller wallaby with its gentle big eyes, to the tiny hare-wallaby and the tree-kangaroo, and a small pouch-bearing muskrat. The thick-furred gray sloth known as the Australian bear or wombat, the rabbit-like bandicoot of South Australia and the badger, known from its ugly disposition as the Tasmanian Devil, are also found.

It is not certainly known whether it was the French, Dutch or Portuguese who first saw Australia. In 1606 Luys Vaez de Torres, commander of one of the ships in a Spanish squadron, became separated from the others and with his vessel passed through the strait at the northern tip of the continent which now bears his name; but he found nothing along the north coast to tempt him farther inland. In 1627 Carpenter, who was in the Dutch service, investigated what we know as the Gulf of Carpentaria. But though the Dutch called the land New Holland, they did no colonizing. Then in 1642 the Dutch

explorer Abel Janz Tasman found the western coast of what we know as Tasmania and named it Van Diemen's Land in honor of the governor of the Dutch East Indies whom he served. The first Englishman to set foot on Australian soil was William Dampier who landed on the arid west coast in 1688.

Finally that famous explorer, Captain James Cook, was sent by King George III to find new lands in the South Pacific, and, in 1770, found anchorage for the Endeavor, north of where Sydney now stands, and because of the strange plants he found called it Botany Bay. Afterward he nearly lost his ship on the Great Barrier Reef, but finally learned that the land mass was separate from New Guinea and gave it the name of New South Wales. This discovery came at a time when England was transporting her law-breakers to other lands, and at the suggestion of Lord Sydney she sent Captain Phillip in 1786 with a colony of seven hundred people, some of whom had done no more than poach a rabbit or leave a debt unpaid—though some had been more radical—to the great natural harbor down the eastern coast which we know as Sydney. These first colonists brought not only the means to cultivate the soil, but seed-wheat, cows and horses. The date of their landing,

THE ISLAND CONTINENT

January 28, 1788, is celebrated as the birthday of Australia. In 1791 Vancouver took possession of the country around King George Sound and by 1793 free immigrants began to leave the British Isles for this new country. The explorer Matthew Flinders in 1803 named the continent Australia.

During the next half century various others made explorations. Between 1818 and 1829 Captain Sturt pushed through the passes to see if there was a great inland sea, but found it desert. It was now thought that the interior might all be stony desert: not till after 1845 did anyone penetrate to the heart of the continent. Leichhardt, who had crossed from New South Wales to northern Australia, disappeared in 1847. John M'Douall Stuart traversed the continent from south to north, starting from Adelaide in 1860 with pack-horses. After passing Lakes Torrens and Eyre he crossed the MacDonnell range and reached Central Mount Stuart. He found land well worth pastoral development. In 1862 Stuart succeeded in traversing the bush and sandstone tableland to the Indian

Ocean along a route that is now occupied by the telegraph connecting Adelaide with London. In the meantime Burke and Wills, after having crossed the eastern end of the continent, got as far as the Gulf of Carpentaria. Finally, in 1868-76, Forrest and Giles, running telegraph lines respectively from the west and from the north, very nearly ran into each other, so that a generation later it was possible to join the gold fields of Coolgardie in the south with those of Kimberley in the north. Other names that might be mentioned include Gosse and Warburton, Barclay, Gregory, Maurice and Murray.

When the news reached England that Australia contained great tracts of fertile land, numbers of ex-soldiers and some of



Australian Govt.

DIGNIFIED EMUS AND GROTESQUE KANGAROOS

Like the platypus, the emu and the kangaroo are found only in Australia. The emu, almost as large as the ostrich, cannot fly. Of kangaroos there are many varieties. The largest are red and measure nine feet from tip to tip.

those thrown out of employment by the introduction of machinery sought better luck in Australia. The two main factors in later settlement were sheep, which it was found as early as 1803 would flourish on the grasslands, and the discovery of gold in 1851. Later coal and tin were found, as well as pearl oyster beds, and large tracts suitable for growing sugar. The sale of wool brought prosperity and created a need for warehouses and harbors for the ships that came for the wool. Thus many of the coast cities sprang into being.

Gold was first discovered by E. Hargraves, who had gone

to the mines in California in 1849. He made his find at Summerhill Creek about twenty miles north of Bathurst in February of that year; and it precipitated such a gold rush as has seldom been equaled. Many people died of thirst and hunger on their way to the gold fields, others found enough "pay dirt" in the gravel of stream beds and mountain slopes to make their fortunes. Prices rose and conditions were much as they are anywhere during a boom. Then in August gold was found at Anderson's Creek, near Melbourne, by a shepherd who picked up a lump of the soft yellow metal while herding his flock. Later that same month the great Ballarat gold field, perhaps seventy-five miles from Melbourne, was discovered, and brought people from Europe, North America, New Zealand and China. At Ballarat one nugget was picked up which measured eighteen inches long and weighed over a hundred pounds. Next the world gasped at the "Welcome Nugget," which actually weighed over a hundred and eighty-four pounds. Valuable mines were also located at Bendigo. Within a decade a total of \$500,000,000 worth of gold had been found, Melbourne had become an important city and Victoria had grown to a flourishing state. Gold attracted immigrants to Western Australia between 1891 and 1901.

Chinese Exclusion Laws

From the first the white miners objected to the presence of the Chinese at the "diggings," and various states as they were formed made laws tending toward Chinese exclusion. It was, indeed, this mutual interest which got them together in 1888 in a gathering which proved an important step in federation.

Now New South Wales, the mother colony, had become a British possession in 1788, by 1843 it had a Legislative Council and in 1856 responsible government. But first its extreme southern portion (the population of which doubled within a year of the discovery of gold) became a separate colony, Victoria, in 1851, and had responsible government by

1855. Then in 1859 the northern portion of the mother colony separated and as Queensland had government conferred upon it. This daughter colony is a very great deal larger than New South Wales, for it reaches from south of Brisbane clear around to midway of the coast of the Gulf of Carpentaria.

Development of the States

South Australia, on the Great-Australian Bight, with a deep gulf just west of Adelaide, dates from 1836, when a joint stock company initiated the Wakefield colony. It too had a Legislative Council by 1851. Western Australia, on the Indian Ocean, has been British since 1791 when Vancouver planted the flag on King George Sound. As early as 1826 New South Wales had sent soldiers and others to found Frederickstown, the year following Captain James Stirling surveyed the coast as far as Swan River and in 1829 founded the Swan River Settlement and the towns of Perth and Fremantle, the latter named for Captain Fremantle who had taken possession of this territory for the British Crown. Large grants were made to settlers, but there were so few people in this vast wilderness that in 1850 they asked that a penal settlement be located there, and convicts were sent them until 1868. These men, some merely unfortunate or athirst for excitement, were many of them roused by pioneer conditions into becoming valuable citizens. In 1870 Western Australia initiated a partly representative government. The island of Tasmania was a dependency of New South Wales from 1803 until 1825, and by 1851 had its own Legislative Council, while by 1856 responsible government came into operation. Northern Territory, originally part of New South Wales, was annexed by South Australia in 1863, but in 1911 passed under the direct control of the Commonwealth and in 1927 divided into North and Central Australia.

Sounds Like a Fairy Tale

From start to finish, the states (of which there were five by 1860) with re-

sponsible governments have assisted hundreds of thousands of immigrants to acquire land. Queensland, which reaches northward almost to the equator, owes its origin in part to fabulous Mount Morgan, where a farmer sold fourteen prospectors some land at \$5 an acre which eventually yielded \$125,000,000. Then copper was found at Charters Towers, and Mt. Leviathan was discovered to be a hill of iron. Tin, silver, sapphires and opals add to the richness of Queensland, and it is possible to raise cotton and tobacco, pineapples and bananas. But this state specializes in growing sugar. It produces enough to supply the entire continent. At one time cheap labor was imported from the South Sea Islands, but was afterward shipped back, and the plantations are worked by

white labor. The government buys the entire crop, which is refined at Sydney and Melbourne.

Southern Queensland contains the fertile Darling Downs where one finds orchards and vineyards, timber, wheat fields—on some of which two crops a year may be grown—and pastures which yield seven or eight crops. Western Queensland is so dry that one region is called the Never-Never Land because it practically never rains, as the mountains cut off the moisture from the Pacific. It is told of one little girl that when she saw her first rain, she cried, thinking something terrible was about to happen. Fortunately there are artesian waters in Queensland and in patches elsewhere. Though the water that gushes from these



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CORAL GROWTHS THAT HAVE BUILT THE GREAT BARRIER REEF

Stretching for well over a thousand miles off the east coast of Australia, the Great Barrier Reef acts as a stout breakwater against the storms of the South Pacific. It has been raised from the ocean bed in the course of thousands of years by the continuous growth of such fantastic masses of coral as we see in this photograph of the Skull Reef.



Australian Govt.

DROVERS HALT FOR REST BESIDE A PLACID STREAM THAT FLOWS THROUGH PARKLIKE COUNTRY

Australians are extremely fond of tea, which, easily portable, is the staple drink of those who work in the wild bush or on the great farms far from any town. It is usually made in a tin pail, like the one that these men are boiling, and the wanderer seldom has trouble in collecting

sticks with which to make a fire. As sheep drovers may travel for days, once they have left the populous districts around the great cities, without seeing a human habitation where supplies may be purchased, they are obliged to carry their own provisions.



N. S. W. Govt.

"ROUND UP" OF SHEEP ON ONE OF THE RANCHES OF NEW SOUTH WALES, AUSTRALIA'S MOTHER STATE

The first sheep introduced into Australia were taken to New South Wales, the oldest state, which has ever since maintained the lead in the industry. Here we see only part of a huge flock of Merinos that pastures in the Riverina district. Though the climate of New South Wales is

perfect for sheep-rearing, the pasture is not over-plentiful, which makes it necessary that there should be two acres of land to every sheep. This photograph gives one a good general idea of the size of the ranch. and we see why the shepherds must be mounted.



Australian Govt.

WOOL-WAGON CROSSING A FORD ON A DIFFICULT ROAD TO THE RAILWAY IN NEW SOUTH WALES

The best wool in Australia comes from the Riverina, a well watered district in New South Wales. Although wheat is grown here with great success, the main occupation of the inhabitants is the rearing of Merino sheep. These are largely the descendants of a few Spanish rams and

ewes brought to Australia more than a hundred years ago; but their fleeces are thicker and longer, and the fibres of the wool softer and finer than those usually obtained from European and American sheep. Another picture shows one of these flocks with such fleeces.



PREPARING TO SHIFT CAMP ON AN AUSTRALIAN SHEEP FARM

The horses have been loaded with the bedding, food and dishes, and their masters, whose job it is to look after the sheep fences and repair the damaged sections, are ready for another day's work. Many of the sheep-runs are so large that the men thus employed have to travel on horseback with their camp outfits for days at a time.



© Merle La Voy

GRADING APPLES IN A SUNLIT ORCHARD IN TASMANIA

The soil and climate of Tasmania are suitable for fruit-growing, and a large quantity is grown in its sunny, well watered orchards. Its apples, in particular, are excellent, and are grown for export. Before being packed, they must be sorted according to size, which is done accurately and expeditiously by the ingenious machine displayed above.

underground reservoirs is often hot and sometimes tainted with salt or soda, the stock drink it and dry-farms can be irrigated with water from this source. It is farther west that the big droughts do most harm.

New South Wales has coal, and Newcastle dates from its discovery in 1796. This is the state that has attracted the most capital, thanks in part to its wool, wheat, meat and coal; and it decided that after 1853 it would receive no more law-breakers. We shall deal presently with Sydney and other cities of Australia.

Tasmania, which received none but free immigrants after 1853, is well watered and has woods and trout streams and a chain of inland lakes. Co-operative fruit and dairy farming and the vast tin mine on Mount Bischoff, which was opened in 1872, together with the wealth of gold, copper and silver of Mount Lyell, discovered in 1881, account in large part for the settlement of this "Apple Isle," as it is called.

South and Western Australia

South Australia has orchards and vineyards as well as the Mallee Desert, a bush of scrub eucalyptus beyond the Murray River. A few districts were settled by German farmers. In Western Australia, where a settler's nearest neighbor may live twelve miles away, much of the land is dry, with limestone caves beneath; and water is piped to the gold mines by a huge pipe-line that starts near Perth, away down the west coast where there is a limited area of farmlands and jarrah forests.

We have seen the separate colonies, with their differing character, but with a homogeneous population and similar political institutions, secure self-government. They differed as to the tariff question and in their attitude toward immigrants, but all desired permanent settlers who should reside on the land they owned. Feeling that strength would grow of union and after various discussions and considerable compromise, due to the natural jealousy of the states, the Commonwealth was formed in 1901 of the six original states

and Northern Territory. As in the United States of America, the central government has definite and limited powers and the states take care of the rest. There is a Federal Parliament composed of the sovereign of Great Britain—represented by a Governor-General, a Senate and a House of Representatives. For the capital a federal site was later chosen about midway between Sydney and Melbourne. Here, at Canberra, a beautiful city was planned in the midst of a great waste. Until its completion in 1927, Melbourne was the capital.

The Australian "Bush"

The towns of the interior lie isolated in a sea of bush through which, periodically, careens a dusty stage-coach laden with men in linen "dusters," "four quart" sombreros and high laced boots. Merchandise and ore travel chiefly by camel caravan. Through sun-glare tainted with the oily smell of tarweed plod these belled and raucous camels; for these drought-defying beasts with their tireless stride have been found to be practically immune to heat and flies, as well as uncommonly able to survive the stifling dust-storms. They have Afghan drivers and black-fellow attendants, and take the better part of a year to make the round trip with wool and a return load of lumber, canned butter, bacon and other necessities of the "outback" dweller.

Danger of Getting Lost

Endless, impenetrable, the Australian "bush," which covers so much of the interior, is worse than jungle or desert from the standpoint of getting lost. Just as in places near the sea children are told to be careful not to get caught by the tide, so children of the bush are warned never to wander from the trail. A boy on his way to school, attracted by a bright insect, may try to catch it. Suddenly he discovers that he is off the trail and does not know the way back; for the bush is high enough to prevent him from seeing over it. As soon as his people become uneasy at his non-appearance, they will start hunting for him, with groups of

neighbors to help; and these groups keep signaling one another lest they too should get lost. After dark they light torches to attract one another's attention. Once a party of children was found too exhausted to move: they had wandered for four days without food or water. They said they had seen the torches but had been afraid these were the signal lights of blackfellows and so had run away and hid, instead of showing themselves.

Australia is pre-eminently a sheep country—the greatest in the world. One would find it interesting to visit a typical sheep station. Many of the owners or resident-managers are college-bred; they may have costly furnishings in their one-story ranch houses and as many servants as a British lord. There are stables full of saddle and race-horses, there are guns and fishing-tackle, tennis rackets and golf bags, and, invariably, an afternoon tea service. People often dress for dinner; it may be in clothing ordered by mail, but none the less fashionable. This order of affairs exists in part because even the “jackaroos” or young men who begin as ranch hands have often been Englishmen of good family. The flocks are shepherded by men called boundary-riders whose job it is to ride horseback along the fences with their blankets and coffee-pot slung on the saddle behind them, to see that all is well.

World-famous Sheep Country

The best breeds of sheep, from dainty Merinos to hardy Border Leicesters, are found, and the improvement of the stock is a matter for constant experiment. As a consequence, it is not unusual to clip nine pounds of Merino fleece from one animal. The shearers' union is perhaps the most important in all that land of union men. One of its rules is that no man can be compelled to shear wet sheep, which are difficult to handle. The shearing is done under contract; and as warm weather comes, gangs of shearers progress from station to station. One will find men living decently in barracks and conducting their work almost in the manner of the barber-shop.

The shearing is all performed with machine clippers, little knives that move backward and forward over each other literally at the rate of two thousand times a minute. The motive power is supplied by steam, compressed air or, more often, electricity. These clippers take the wool off smoothly and without wounding the animals, and an expert workman can clip a hundred sheep a day regularly.

Bullockies or Ox-teams

After the wool is shorn and graded, it is made up into huge bales ready for the ox-carts, or more latterly, the tractors and motor trucks which transport it the hundred miles or so that it may be necessary to reach the shipping point. The drivers of the ox-wagons are known as “bullockies” and can actually handle several dozen oxen to a team, yoked four abreast if their load requires it. It is interesting to meet one of these bullockies hunched placidly behind his slow-footed oxen in a cloud of dust, with his rawhide whip cracking the sun-baked silences.

Where people of other countries dread timber wolves or tigers, as the case may be, the sheepmen of the island continent dread the hordes of rabbits that devour the grasses of their pasture lands. So formidable have these pests become that “rabbiters” are employed to give their entire time to exterminating the furry hordes; and it is on record that the government of New South Wales recently promised \$125,000 to the first man who would invent a better method for the extermination of the rodents. Poisoning, naturally, has its dangers to the sheep. But as one pair of rabbits will breed six litters a year, each of which may contain five little ones, and as these in turn begin to breed at the age of six months, it will be seen that the situation is a grave one for the sheepmen whose pastures they devour.

Rabbits Were not Native

Why, you will ask, have these rabbits no natural foes to keep down their numbers? The reason is that rabbits were not native to Australia: the continent has



Australian Govt.

MINES IN WHICH THE WEALTH OF BROKEN HILL IS SOUGHT

The land on which Broken Hill is built is one great treasure-house, for here are found valuable metals in abundance—silver, gold, lead, copper and tin. Mining is therefore the town's chief industry. Here is the Proprietary Mine, probably the largest silver mine in the world.

Broken Hill is also the centre of a prosperous sheep and cattle-rearing district.

no carnivora except the dingo. The first rabbits were introduced for sporting purposes and it seems but poetic justice that the pastures of the man who brought them were the first to be devoured. However, his neighbors' neighbors are still paying the price of his experiment. Both individual ranchers and the states have spent millions of dollars for rabbit-fences of wire-netting three feet high, each set four inches into the ground and topped by a strand of barbed wire. These fences criss-cross the land, with gates across the roads every few miles of the way; and the tourist ought to be warned that a heavy penalty is exacted of anyone who leaves a gate open. It is said that South Australia itself has fully enough fences to girdle the earth. Foxes were at one time imported to help exterminate the rabbits, but the foxes killed so many sheep that the fences in many places had to be made higher, with more strands of barbed wire at the top, to keep the foxes out. And finally, Louis Pasteur, the scientist, sent a man to experiment on a neighboring island with some disease bacillus that

might spread death among the rabbits without harming the sheep, but the experiment was not successful.

There is one compensation: millions of dollars' worth of rabbit skins are exported for the making of women's furs and, in addition, an average of twenty million rabbits a year are shipped in a frozen state to the meat markets of European countries.

Rabbits, however, are not the only foes of the sheep. The dingoes or wild dogs native to the continent kill sheep and often feast on just their tongues, then pass on to further killings. Thus the rabbitier also has these wild dogs to exterminate. For them he leaves poisoned meat as he goes his rounds. To add a last straw to the sheepman's problems, mice and caterpillars eat the grass that the sheep ought to have; and worse, the cactus known as the prickly pear takes root in certain places and overruns the pastures, and its barbs are so painful that workmen practically refuse to trim it away. An attempt is being made to fight this rapacious plant with a fungus from South America.

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Australia is dry enough at best, and during one of the great droughts which periodically devastate the forage, sheep and cattle used to die by the thousands. During the drought of 1902-03 trees were cut down for forage: even then, fifteen million sheep perished of hunger. But by the big drought of 1919-20 certain relief measures were in effect. The government now maintains stock routes for driving cattle to where water may be had, rain is caught in "tanks"—cement-lined holes that catch the rain-water—and especially in Victoria and New South Wales extensive irrigation projects dependent on local artesian wells are under way. The Great Artesian Basin, larger than the state of Texas, which lies perhaps half a mile deep beneath the surface in Queensland and a part of Northern Territory, permits the water to be ditched in crude plowed furrows to the pastures. Dried grass is also mixed with salt and preserved in pits; though labor is so scarce that fodder is almost never stored in silos.

The entire continent of Australia is

unionized, and was the first country to have an eight-hour day. The so-called Three Eights Monument in Melbourne bears a design that represents what was the slogan of Australian workmen a generation ago, "Eight hours' work, eight hours' play, and eight hours' rest." In some trades to-day thirty-six hours is considered a week's work. There is a bonus "in respect of every child born in Australia of white parents"; and the Family Endowment Act of 1927 of New South Wales insures allowances to families for the benefit of their children. The Labor Party is dominant in politics, and wages, regulated by the government, are high, while every effort is made to have food cheap. The state operates half a hundred butcher shops, a meat-packing plant and fully two dozen cattle ranches. In addition, it has a large produce business that sells direct to the consumer. The government also owns and operates a savings bank and an insurance company, mines and railroads, dockyards, sawmills and lumber yards, stone quarries and hydro-



Australian Govt.

STALWART GOLD-MINERS ENCAMPED IN THE DESOLATE BUSH

To-day most of the gold produced in Australia is obtained by great companies and the work is done by means of machinery. It is still possible, however, in Western Australia, for independent miners to make a good living by using the primitive methods of their grandfathers. They usually work in small parties, living in encampments such as this.



Australian Govt.

WELL MOUNTED COWBOYS ROUND UP A FINE HERD OF CATTLE

Although sheep-rearing is the more important industry, cattle-breeding has been so well developed in Australia that much dairy produce and frozen meat are now exported. The grasslands of New South Wales and parts of Queensland are the most suitable districts for stock-rearing, and, as on the western plains of the United States, support huge herds of cattle.



Australian Govt.

BACKWOODSMEN LUMBERING IN AN AUSTRALIAN HARDWOOD FOREST

Many valuable timber trees, such as red gum and eucalyptus, grow in the dense forests which extend over wide areas of Australia. Among the most important is the jarrah, from the wood of which the blocks that pave London streets and also harbor piles and other objects to be exposed to the effects of sea-water, are manufactured.

electric plants; and in New South Wales it has its own employees in the telephone and telegraph services. Nearly one individual in twenty accordingly works for the government.

The states are agreed in desiring to keep out labor from China, Japan, Malaya and India; for the national ideal is a "white Australia." Much as the Commonwealth needs a larger population to man her industries and save her raw materials from being transported half way around the globe to be manufactured, much as she desires more labor for her mines and plantations, she prefers to wait for a selected white immigration of English-speaking people and for the growth of her own population. Thus does she hope to maintain her present high standard of wages and living conditions. However, the Australian labor unions require that men coming to work on the land must have had previous agricultural experience, a condition that debars large numbers of English workingmen who are now out of employment.

Schools That Go to the Pupils

Though only half of the population lives in cities, practically every child in that great continent can read and write. Many children of the country districts are given passes on state-owned railroads that they may go to school; where there are as many as a dozen pupils in one neighborhood, provisional schools are established for them, and where there are less than twelve pupils, half-time schools are organized which are visited by a teacher every alternate day. Where the districts are too thinly populated to permit even of this arrangement, the teachers go from house to house, set lessons and hear those previously assigned. During one year four itinerant teachers of Queensland traveled 67,000 miles to instruct 1,800 pupils in this manner. New South Wales even has three traveling schools. The teacher drives about the country with a motor vehicle if the roads permit, otherwise with a wagon; and when he reaches some central rallying point, he sets up a big tent for the classroom and a small tent

for his living quarters, and holds forth for perhaps a week. Where his pupils are cut off from even this source of instruction, he teaches grade subjects by mail.

Two Fine Universities

By way of higher education, there are high schools, technical schools—of which Victoria has at least two dozen and which teach everything from wool-sorting to dressmaking—there are state agricultural colleges which send farm experts to the remotest regions, and a Working Men's College—open to women as well as men—which offers certain of its classes in the evening. Sydney University graduates are received at Oxford, and the University of Melbourne offers degrees of the same status.

Over half the population of the island continent lives in cities, and a population map would show the centres most thickly populated to be strung along the south-east and south coast. First there is Brisbane, with an outer harbor on Moreton Bay from which the sand dunes rise to wooded hills. Along the Brisbane River the ship docks at packing-plants that freeze meat for shipment. Back of these cluster cottages with iron roofs, and farther along, houses with gardens climb the slope to the Queensland Parliament House. One sniffs pleasurably at the tarry, mellow-sounding wooden paving-blocks; one notes the imposing State Treasury Building and the beautiful Gothic Cathedral of St. John.

A Wonderful Great Harbor

One enters rock-bottomed Sydney Harbor between two outstanding bluffs, to find a sheltered waterway of four inlets aglitter against distant mountains. The big liners usually dock at Circular Quay, from which radiates an excellent ferry system. Darling Harbor is lined with wharves, and there are wharves on the sea side, on Woolloomooloo Bay—where Governor Phillip put in, in 1788. Sydney is the industrial centre and most important wool market of Australia, and boasts some of the largest wool warehouses in the world. They cover acres. Clouds of

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white wool and bags are auctioned off at the Exchange. Wheat, meat and coal add to the general prosperity, and one is impressed by the tall wheat elevators.

Glass-roofed Arcades

The yellow sandstone business structures are of the skyscraper type, though not especially high. There is a huge Municipal Market; there are glass-roofed arcades ornate with palms that reach from street to street. There are residence suburbs where the houses all have sleeping-porches, and any number of parks—Domain, in the heart of the down-town district, Moore, Centennial, Taronga, with its big open-air zoo. The store windows display many goods that were manufactured in the United States of America—farm implements, automobiles, electric generators, shoes and candy.

Melbourne, on the Bay of Port Phillip, with Port Melbourne for the docking of larger vessels, lies along both sides of the River Yarra, so that ships can come clear into the wholesale district. The city was laid out on the checkerboard plan, with wide streets and fine public buildings, a museum and an art gallery. There is, as in Sydney, a huge Town Hall, where occasionally free pipe-organ concerts are given, and a costly Municipal Market House with hundreds of stalls. The apartment houses have electric and other labor-saving equipment, for there are almost no house servants, and there are parks and playgrounds, the Alexandra Gardens down town, and the race-courses at Flemington Lawn where one track is reserved for steeple-chasing. Here, too, one finds arcades. The one-time Parliament House is a colonnaded building with a statue of Queen Victoria in the vestibule. One can but mention the Treasury, Melbourne University and St. Patrick's Cathedral and the Town-Planning Association which has garden suburbs under way. The aborigines traded this site for forty pairs of blankets and some other goods, and fortunes were made before the days of the gold rush by the auctioning off of town lots.

Canberra, the capital, on a site donated

by New South Wales, is a made-to-order city laid out in the wilderness according to a plan drawn up by a Chicago architect. The illustration shows the relation of the streets to the government buildings. This has been a costly enterprise. Begun in 1913, work had to be stopped during the World War, but was completed in time for the Prince of Wales to preside at the opening in 1927. This region was formerly a great sheep station. Encircled by hills and watered by the River Molonglo, a branch of the Murrumbidgee, it has a distant view of the Blue Mountains. The grounds are planted with rare trees and flowering shrubs.

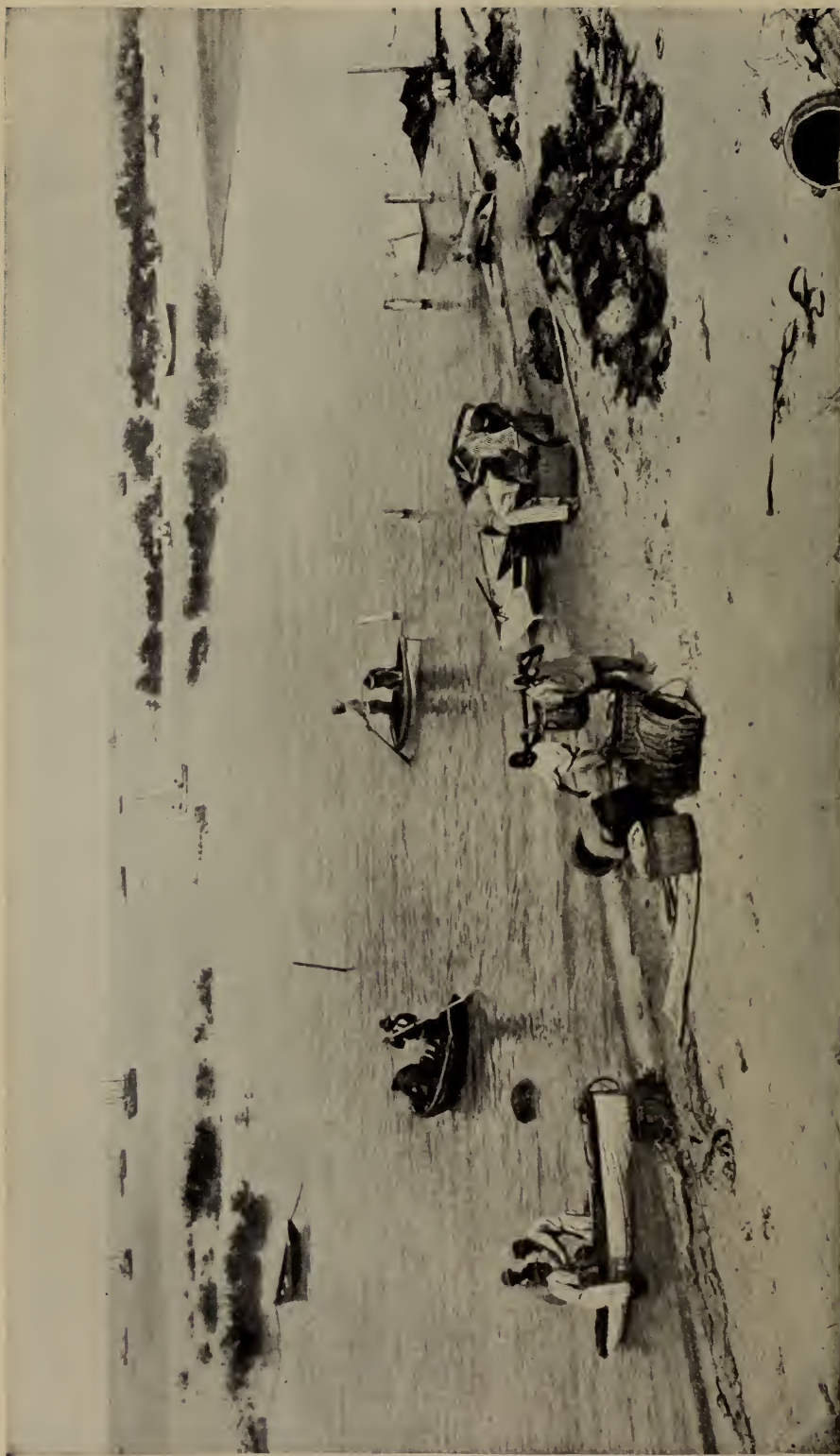
The Dauntless Anzacs

Perth, on the southern lap of the west coast of Australia, is a seaside city with a harbor at Fremantle. The tourist would enjoy King's Park and the regattas on Swan River.

The "Anzacs" of the World War (Australian and New Zealand Army Corps) were a tall, sun-bronzed lot of young men, self-confident and well-nigh dauntless. The miners and sheepmen are nothing if not independent, though friendly to strangers, ever ready to feed the "sundowner" as they call the tramp who arrives just in time for supper. The urban half of the population is generous, energetic, even to the point of impatience. Fond of playing hard in playtime, they go in for such unusual sports as "surfing" on a plank and shooting turkeys from aeroplanes.

An Air-minded Continent

Australia, by the way, with its clear air and level ground, is a wonderful country for aviation. The Civic Aviation Department is linking the remotest regions of desert and bush with the cities, air mail contractors are subsidized by the government, and fifty thousand dollars was offered by that same government for the first England-to-Australia flight. It will be recalled that Captain C. E. Kingsford-Smith, flying in the Southern Cross in 1928 from England to Australia, made the longest over-water flight at that time



Australian Govt.

BOATS FROM THE PEARL-FISHING FLEET IN WESTERN AUSTRALIA LAND THEIR PRECIOUS FINDS

Pearl fishers reap a good harvest each year from the pearl oyster beds that abound in the tropic waters off the northern coasts of Australia. Although the pearls themselves are extremely valuable—a single one has been worth as much as \$15,000—comparatively few are found, so that they do not bring as much profit as do the vast quantities of oyster shells obtained. These yield the beautiful mother-of-pearl of commerce. In the centre of this photograph we see two men carrying ashore from the small boats a load of precious pearl oysters in a tub.



Mitchell

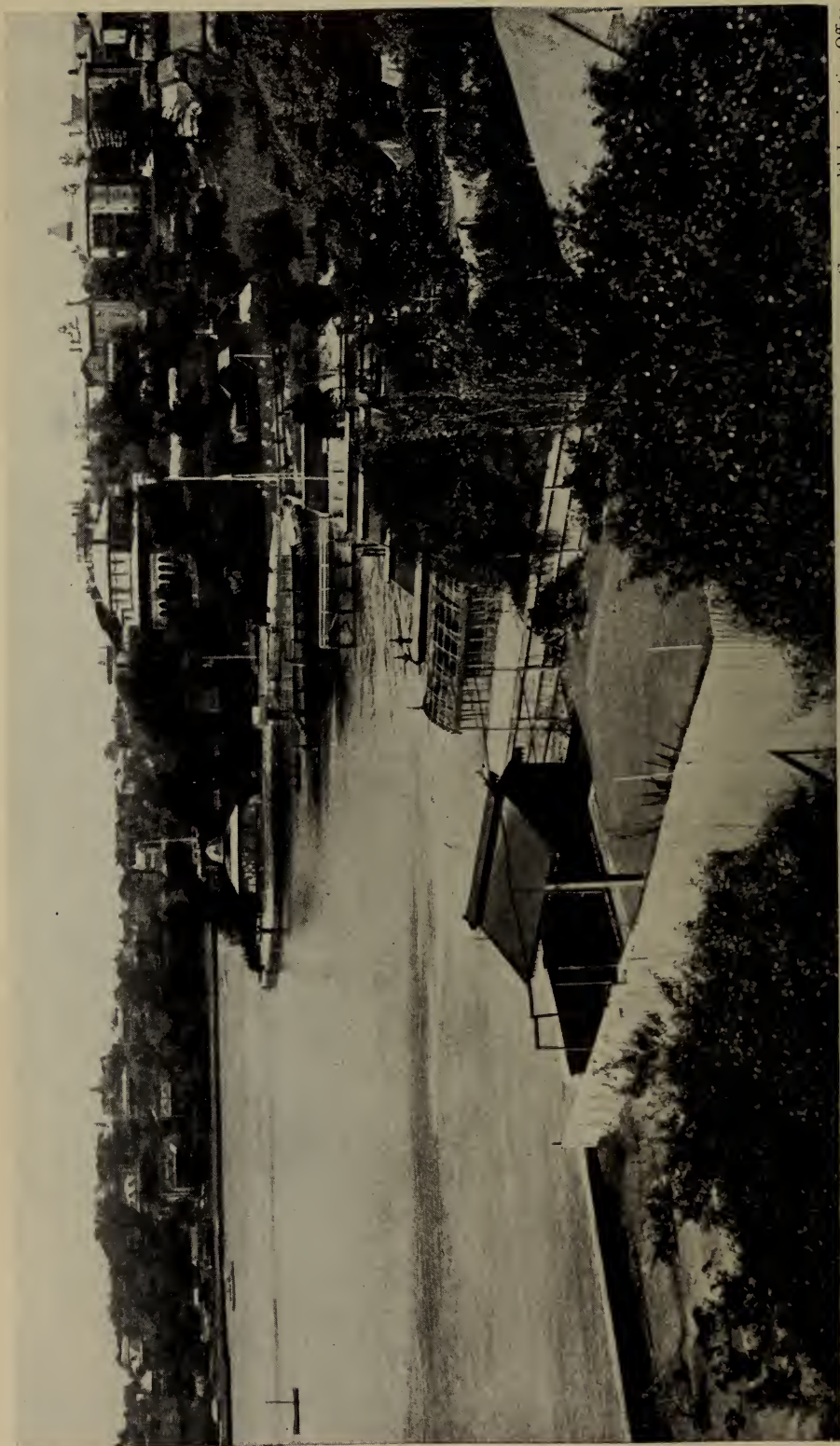
CAMELS AID THE PROSPECTOR IN THE RICH DESERT LANDS

In the sun-baked wilderness of northwest Australia where thirst would kill other pack-animals, camels brought from Afghanistan are commonly used by miners and prospectors; for gold is abundant in this sparsely populated region.



FOUR SECTIONS OF TRACK ON THE RAILWAY OVER THE BLUE MOUNTAINS

Running nearly parallel with the coast of New South Wales is the range of the Blue Mountains. Where the railway crosses them an elaborate zigzag track has had to be constructed. Most Australian railways are owned either by the states or by the Commonwealth.



Commonwealth Immigration Office

WOODED SLOPES, DOTTED WITH STATELY MANSIONS, SWEEP DOWN TO THE WATERS OF ELIZABETH BAY

Sydney, the capital of New South Wales, a city of over a million people, has an extraordinarily fine location to the south of its great harbor, along the shores of which are houses and gardens such as those shown above. Elizabeth Bay is a small indentation of Rushcutter Bay, on the south side of the harbor. As it takes very little time to reach the city from here, a good many people can live in this charming spot and travel daily to and from their business. One of the sports those who live in Sydney can enjoy is yachting on this same Rushcutter Bay.



FERRY-BOAT LEAVING CIRCULAR QUAY, WHERE

The central port of Sydney is built on a three-armed peninsula, and Sydney Cove, on which is Circular Quay, lies between two of these arms. From it run many of the most important streets in Sydney, busy streets, lined with wonderful shops, offices and skyscrapers. Ferry-boats

THE ORIGINAL COLONIZERS OF SYDNEY LANDED

ply between the covered landing stages on the quay and many of the business quarters, suburbs and pleasure resorts in the harbor, which is said to be the finest in the world. In the top right-hand corner of this aerial photograph we see a stretch of Darling Harbor.



Commonwealth Immigration Office

PORT ESPERANCE NESTLES IN DENSE WOODS THAT STRETCH TO THE SLOPES OF ADAMSON'S PEAK

Port Esperance, a small village on the southeast coast of Tasmania not far from Hobart, is famous throughout Australia for its loveliness. In summer, coastal steamers bring visitors to this port to make holiday in the woods, which are filled with fine timber. The most prominent feature of the ever varied landscape of this beautiful district is the shapely cone of Adamson's Peak, which is over four thousand feet high. The climate throughout Tasmania, ranging from lakeland to mountains, is delightful. That of the southeastern part is especially mild.



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HOBART, TASMANIA'S CAPITAL, ON THE DERWENT RIVER

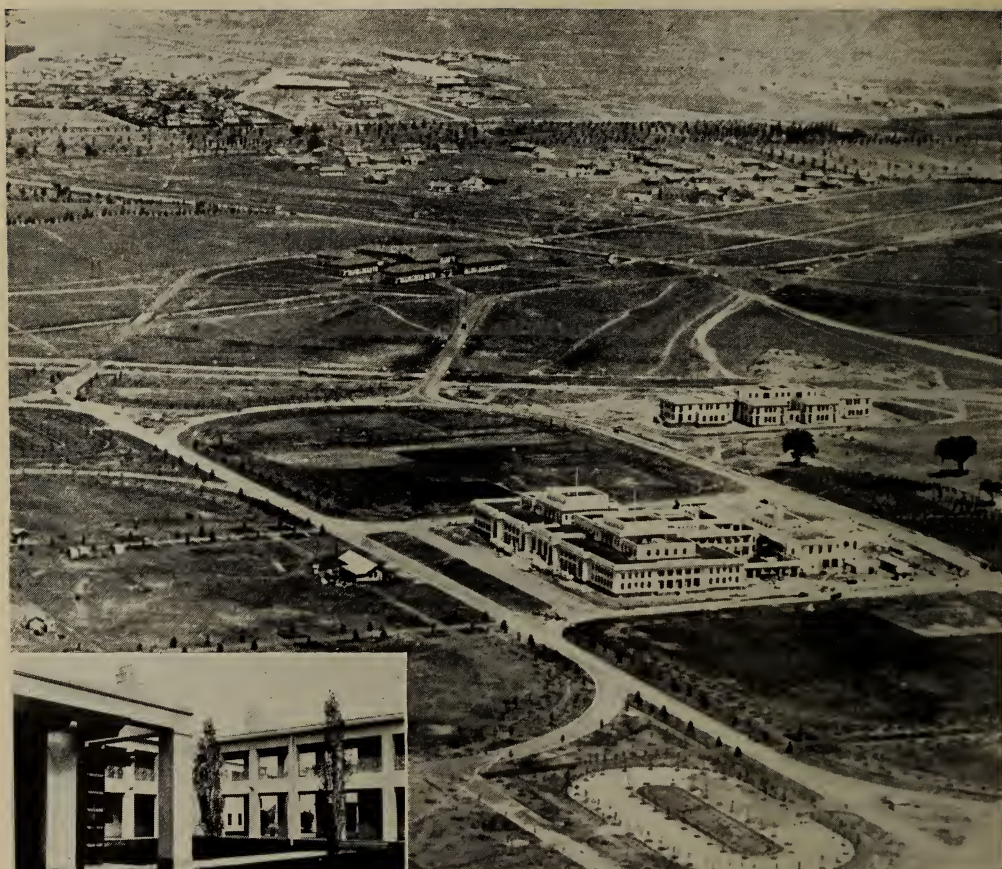
Hobart, about twelve miles inland, possesses a sheltered harbor which even great ocean-going vessels may enter. With this advantage, the city has developed into an important commercial centre. A great part of the products of Tasmania—chiefly apples, preserved fruits, gold and tin—are shipped to the mainland of Australia and to Great Britain.

on record. Likewise, the ten-thousand-mile radio circuit that connects Australia with Canada and the United States was the longest of its kind to be established. There is wireless direct to Montreal and London.

The government railways, chiefly state, total over 25,000 miles, with others under way. Transcontinental freight is hampered by there having long been eight different gauges. However, so dry is most of the country that wheat may be shipped in bags on open flat-cars. It has been a difficult thing to lay the transcontinentals from south to north and from east to west; for where the rails run through the desert, there is no water for the men save that caught in rain-water tanks and none for

the animals that is not brought by train and camel caravan. As the thermometer sometimes registers 130 degrees, some of the cars are built with double roofs to mitigate the burning sunshine. But the last link of an east to west line from Adelaide to Perth was completed in 1927. There is an inland railroad called the Turkey Express because the engineer would always stop the train to shoot his bird. Victoria has electrified rails in city areas.

While Australia has religious freedom, the Church of England outnumbers all others. Indeed, the birthdays of the King of England and the Prince of Wales are celebrated as legal holidays and the British Crown confers honors on public men.



Insert, Publishers Photo Service

Wide World Photos

This shows the government buildings at Canberra, Australia's new capital, and the way they have been laid out on the Federal territory. At the left is a view in the courtyard of the Parliament house.



Ewing Galloway

A NEW CITY LAID OUT IN THE AUSTRALIAN WILDERNESS

The Federal Territory of Canberra, situated on two hills and a strip of land connecting the capital city with its port on Jervis Bay, was ceded to the Commonwealth in 1910 by New South Wales. The grounds and buildings were planned by W. B. Griffin of Chicago, with room for parks and lakes, and streets radiating from the Parliament building.



RAILWAY YARDS ALONG FLINDERS STREET, MELBOURNE, AUSTRALIA

Melbourne, the capital of Victoria and second largest city in Australia, is a railway and commercial centre as well as port. The port is between two and three miles distant from the city proper, but ships of moderate size can come up the Yarra River to the heart of the down-town district and wool, grain, fruit and frozen meat are shipped from here to England.



Publishers Photo Service

ST. HILDA ROAD, ONE OF MELBOURNE'S TREE-LINED BOULEVARDS

In 1837 the city, founded two years before, was named in honor of Lord Melbourne, British Prime Minister. It is laid out with wide thoroughfares and numerous parks and public gardens. Upon the formation of the Commonwealth in 1901 the city became the temporary seat of the Australian government, and so remained until Canberra was completed in 1927.



AUSTRALIA, THE ISLAND CONTINENT

AUSTRALIA: FACTS AND FIGURES

AREA AND POPULATION

Australia, the smallest continent, is bounded on the north by the Timor Sea, the Arafura Sea and Torres Strait; on the east by the Pacific Ocean; on the south by Baas Strait and the Southern Ocean; and on the west by the Indian Ocean. Area, including Tasmania, 2,974,581 square miles; population, estimate in 1928, 6,262,720.

GOVERNMENT

The Commonwealth is a British Dominion and consists of 6 states: New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania, and 2 territories: Northern Territory and Federal Capital Territory. Legislative power vested in a Federal Parliament, consisting of a Governor-General representing the king, a Senate and House of Representatives. State Parliaments retain residuary power of government. Universal adult suffrage. Executive power exercised by the Governor-General assisted by an Executive Council (Cabinet) of 12 members.

COMMERCE AND INDUSTRY

Pastoral industries and agriculture constitute chief occupations. 119,341,904 head of livestock in 1926. Chief crops: wheat, oats, barley, corn, hay, potatoes, sugar-cane, sugar-beets and fruits. Coal, silver, lead, gold, copper and tin are mined. Manufactures confined largely to smelting and heavy metal-work and the prepa-

ration of pastoral products for the market. Chief exports: wool, wheat, hides and skins, butter, flour, meats, sugar and lead; chief imports: cotton and linen goods, motor cars, electrical equipment, petroleum and silk goods.

COMMUNICATIONS

Railway mileage in 1927, 25,523, government-owned, in addition to 967 miles of privately-owned railways. Regular air mail service, government-subsidized. Telephone and telegraph systems, government-owned; mileage of telephone wire, 1,714,974; telegraph, 118,141.

RELIGION AND EDUCATION

No established church; nearly half the population members of the Church of England; many Roman Catholics; other denominations represented. Education is a state function, and is free; primary education compulsory; enrolment in elementary and secondary schools for 1925 was 1,101,037. Besides many private and denominational schools and colleges, technical and normal schools, each of the 6 states has a university.

CHIEF TOWNS

Population of the state capitals, 1926 estimate: Sydney (New South Wales), 1,070,510; Melbourne (Victoria), 944,400; Brisbane (Queensland), 274,260; Adelaide (South Australia), 316,865; Perth (Western Australia), 184,223; and Hobart (Tasmania), 55,130.

AUSTRALIA'S MAGIC-MAKERS

Primitive Natives in the Island Continent

When you go to Australia you will likely land at Adelaide, Melbourne or Sydney, and find the life there not very different from that of any other white man's city. It will be difficult to realize that scattered through vast tracts in the bush are tribes of savages who practice the most primitive forms of magic. These natives are less intelligent than most other uncivilized peoples, but they are held to be the most skillful hunters and trackers in the world. They were the people who invented the boomerang, a wooden weapon so made that it travels farther than any similar weapon and then returns to the thrower, if it misses the mark.

THE English are accustomed to speaking of the Australian aborigines, the native inhabitants of the continent, as "blackfellows"; but that name is not, strictly speaking, correct. The people of the native tribes are a deep copper or dark chocolate in color. One never meets with a really black type. The native of Western Australia differs in many respects from the aborigine of Victoria or New South Wales or Queensland. In one tribe the hair may be straight, in another curly; and in yet another there will be an inclination to frizziness, such as distinguishes the Papuan black. There is a great variation, too, in physique. There is indeed a vast difference in the matter of looks. The natives of one district are brutal, even repulsive in appearance; in another part they have fairly well-formed features. It is possible to make a circle of five hundred miles on a portion of the northern coast and find that it encloses many tribes, all of whom vary in color and speak different languages. The aborigine found by Captain James Cook when he annexed Australia for Great Britain was a man with a low forehead, flat nose, thick lips and a receding chin tufted with beard.

This Australian aborigine is a puzzle to scientists. Two points are clear: he belongs to a race entirely different from neighboring races, and the careful observance of tribal boundaries hints that each tribe must have been settled for many generations in one locality. One view has it that blackfellows are survivals of a primitive race which inhabited a vast

Antarctic continent of which Australia, South Africa and South America once formed a part. For this theory there is at least the evidence of the likeness of many species of birds and fish. A more plausible theory is that in prehistoric times a Dravidian people, representatives of the oldest known races of India, which form the bulk of the population of southern Hindustan, were driven from their home in the hills of the Indian Deccan and made their way south via Ceylon, and that some of them continued in boats of bark to the northwestern shores of Australia. Whether or not they found a Papuan race in possession which they drove south to Tasmania, certain it is that the Australian blacks of to-day minutely resemble the Deccan tribes; they use some of the same words as those employed by the Dravidian fishermen, the same type of canoe and the same unique weapon—the boomerang.

If, however, the Australian blackfellows are Dravidians exiled in past ages from Hindustan, they reached the island continent in an uncommonly low stage of civilization and thereafter practically ceased to evolve save in their extraordinary physical growth. They have abnormally thick skulls and correspondingly small brains. In culture the Australian native compares most unfavorably with the colored people of other lands. He possesses scarcely any of the arts and crafts of which other savage peoples can boast. He generally lives in roughly constructed bark huts, or "gunyahs." Of his inability to count an amusing story is told.



© E. N. A.

FISHING WITH SPEARS IN A RIVER OF NORTHERN QUEENSLAND

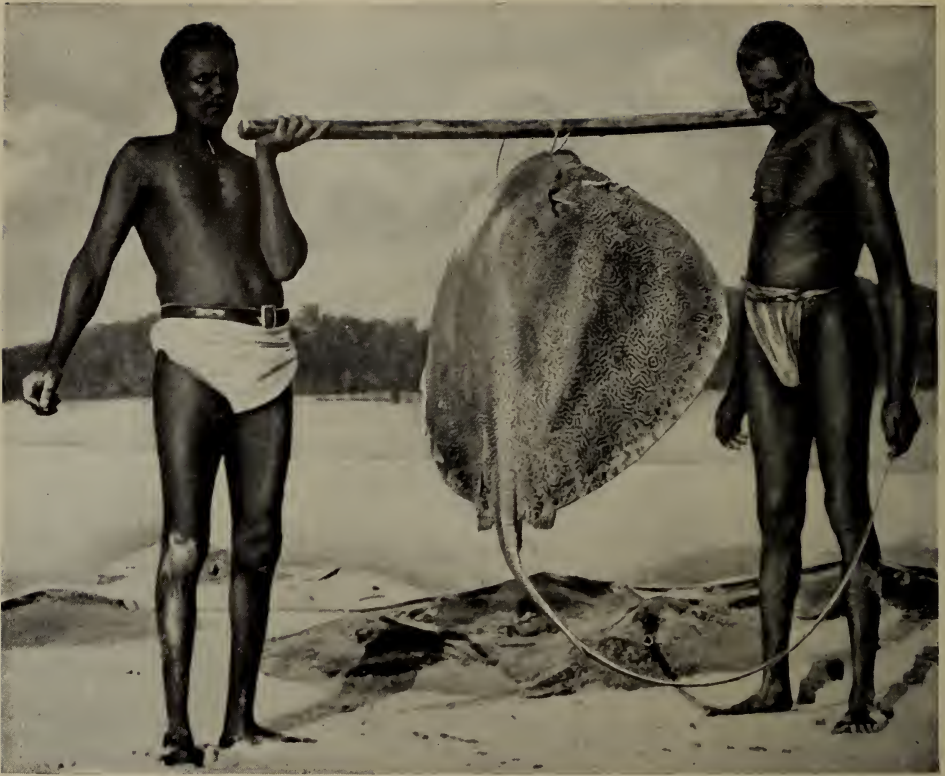
The tribesman is a skillful fisher, and has his own peculiar methods of working. Sometimes he will stand on the bank or in a canoe with a long spear and strike swiftly downward at his prey with great accuracy and force. Sometimes, armed with a short spear, he swims under water and kills with this weapon such fish as he meets in his progress.



Forbin

NATIVE FLOWER GATHERERS IN A DENSE AUSTRALIAN JUNGLE

Having plucked some fine orchids, three natives stand beneath the screwpines to admire them. The tropic jungles of the north of Australia are so wild that white men can only penetrate them with the greatest of difficulty, but the natives are able to find their way about with ease when in search of flowers, and food in the form of nuts and fruit.



GIANTS OF NORTHWEST AUSTRALIA WITH A DANGEROUS FISH

These natives, who are more than seven feet high and very strong, are of a tribe that was recently discovered by a scientific expedition to the regions round the Cambridge Gulf. The huge fish that they have caught is a sting ray, which can inflict a very painful wound by a slash of the long, sharp spine at the end of its tail.

A native had accompanied his master to Melbourne and had seen a white man's city for the first time. "How many people were there, Jacky?" he was asked. "T'ousands—millions—me t'ink fifty!" replied Jacky, rolling his eyes.

It is typical of the low grade of intellect among the aborigines that very few of the tribes which live along the coast have managed to build canoes. The majority rely upon simple rafts and they know next to nothing of the principles of sailing.

As we know, the continent of Australia is poor in animal life. For food the native has to be content with lizards, snakes, frogs, birds and even insects, unless he can kill a kangaroo or an opossum. There are few fruits, and he grows no crops. In his wandering over the sparsely covered country he is continually hunting for food, and this has developed in him remarkable

powers of sight and smell, together with an instinct that is almost uncanny in its working. The wonderful ability displayed by a native in tracking is at times beyond belief. Where the ordinary observer cannot see anything out of the common, an aborigine will read a whole page of facts. A dislodged stone, a turned leaf, a broken twig, a few grains of sand left on a patch of rock—all tell him something about what has passed that way. From a horse's hoof marks he will tell you both the size of the animal and the time that has elapsed since the impressions were made. By the way a hole has been dug or a tree notched he will probably tell you to what tribe the man belongs who performed the act. A tracker has even been known to say that the man (a complete stranger to him) whose trail he was following was knock-kneed—and he proved to be right.

AUSTRALIA'S MAGIC-MAKERS

This special skill in the reading of a bush track is partly the result of training from early childhood. In camp the small boy learns to play games in which animals and birds figure. He thus learns their habits and the appearance of their foot-prints. When he is older he accompanies one of the men into the bush and is taught how to read the many signs of the trail from sand and stone and rock, from tree and shrub and leaf. The girls of the tribe are often not a whit behind the boys in practicing this art of keen observation. The ability of the women in following a trail is as wonderful as that of any man. Police officers in Australia who have had much to do with native trackers have related extraordinary instances of this.

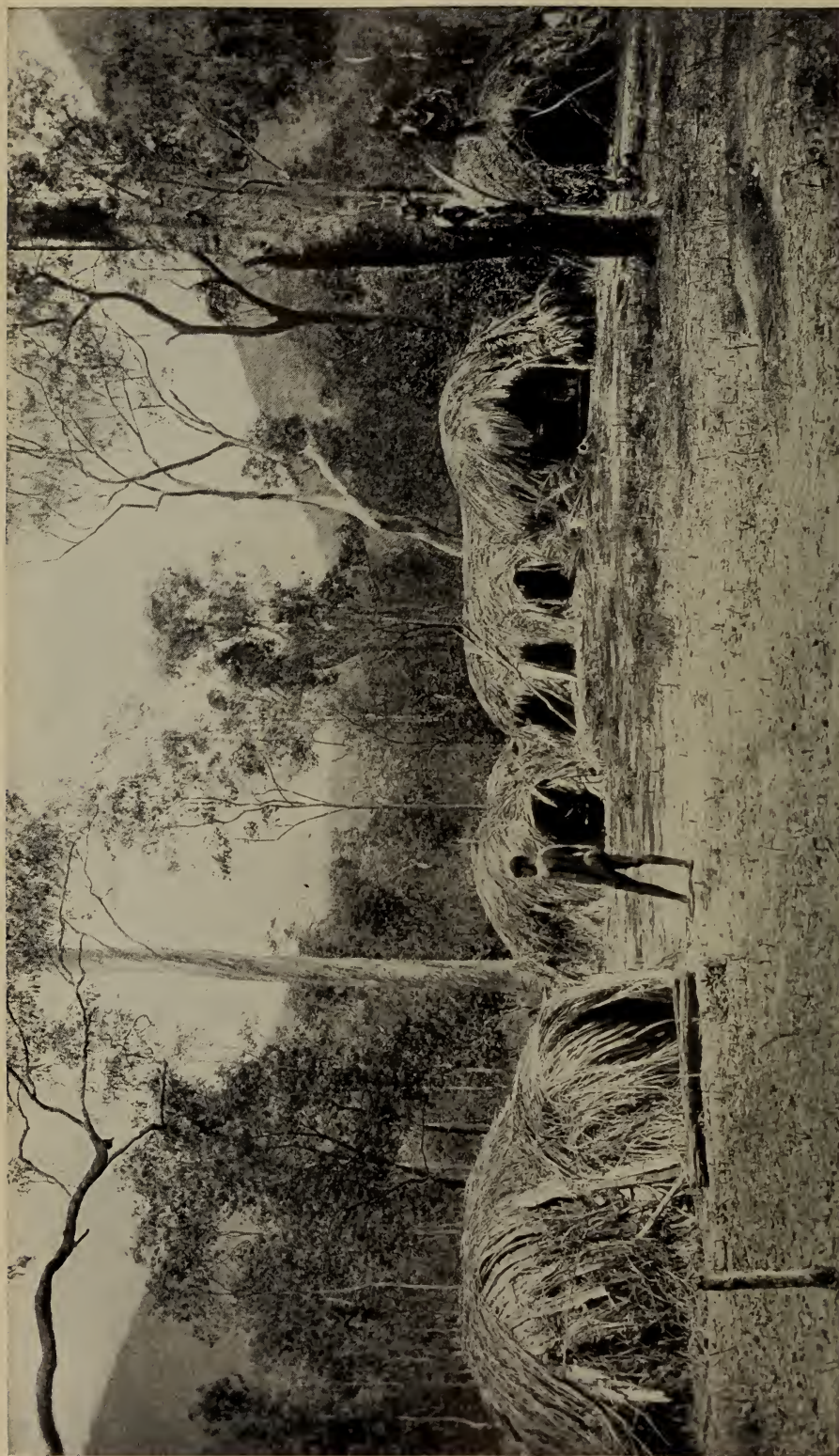
Although the Australian native is primitive in his manner of life, he has followed the custom of many savage peoples in building up an elaborate system of rules for the government of his community. A tribe will be split into several clans and totems, each of which is called by a special name taken from an animal, bird, tree or kind of grass. Out of this curious division has grown a social code which regulates marriage in particular. Under its rules a man, say, of the kangaroo totem, is forbidden to marry a girl of the same order; he must look for his wife among the women of the wombat, the rat or some other totem.

With this particular system there has grown a strong belief in magic. The abo-



LIGHTING A FIRE BY RUBBING TOGETHER PIECES OF WOOD

To make a fire, the Australian savage takes a strip of soft bean wood with a groove in it. One end of a stick of hardwood is placed in this groove, and is made to revolve quickly by being rubbed between the palms of the hand. Dry grass is laid in the groove, and after the fire-maker has rubbed for about a minute it bursts into flame.



UNTIDY ABORIGINAL VILLAGE OF SHAPELESS, DEN-LIKE HOUSES NEAR THE COAST OF QUEENSLAND © E. N. A.

Aborigines living in their natural state are usually content with even less comfortable wurleys or huts, than those seen in this village. At one time, most of the tribes wandered from place to place, and a light screen of branches, leaves and bark, which could be built with very little

trouble and deserted without any regrets, was considered a good enough home. To-day most of the natives live on territories set aside for their use by the government, or in mission stations, where they have civilized dwellings and the opportunity of doing work.



TRIUMPHANT FISHERS OF THE ISLANDS IN THE CAMBRIDGE GULF WITH THEIR CATCH OF SEA-COWS

The natives of the northern coasts of Australia catch the sea-cow or dugong mainly for its flesh, which is a food highly prized. When salted, it tastes like bacon and is relished even by white men. Oil is also obtained from this animal, and makes a tonic much pleasanter to take than cod-liver oil. At one time sea-cows were speared in great numbers annually, but they have become wary and are now usually caught in long, stout nets. Although the dugong lives in the sea it is not a fish, but a mammal, nursing its young as do the mother whale and the seal.



GAILY DRESSED GIRLS ACT AT A CORROBOREE BEFORE MEN WHO ARE AT ONCE AUDIENCE AND CHORUS

Here we see a festive "corroboree" in progress. The girl dancers pretend to weep, while the men, in their gala finery of paint and birds-down and armed with spear-throwers, sit watching. The men take part in the entertainment by singing or thumping on the ground, or they may join

in the dance. If the corroboree lasts until nightfall, torches and fires will be lit so that the revelry will not be interrupted by darkness. Corrobores such as this are held in honor of native visitors or may be performed to obtain presents from white men.

iginal is superstitious to a high degree and lives in a world which he believes to be peopled with evil spirits. Every tribe therefore has its witch doctor (medicine man) to whom the native looks for help. When he is ill it is this sorcerer who purports to evict by magic the malicious influence that has brought him low. When he seeks vengeance on an enemy he plots with this same sorcerer to bring misfortune, illness or death upon the victim.

One common form of magic is known as pointing. This is carried out by means of a sharpened bone or a piece of stick. After certain rites and spells have been performed and repeated, the article in question is taken unseen at night to where its owner's victim is lying, and is jerked repeatedly in his direction, while the spell is again uttered. The evil magic is believed to go direct into the unfortunate man's body, and only a medicine-man is strong enough to counteract its influence.

Other magic ceremonies relate to an occurrence such as rain-making or to the finding of food. In the former case rain is usually represented by water which the sorcerer squirts from his mouth. When there is occasion to make food by magic, a dance may be held wherein the performers dress up in imitation of the creatures—kangaroos, opossums, emus, lizards, snakes—or the plants which they hope will multiply for their benefit.

The dance is always a prominent feature of the ceremonies. It is part of the initiation ceremony when youths pass to the stage of manhood, and it figures in many superstitious rites.

A "corroboree," the name given to an assembly of aborigines when they are performing such a ceremony, is a remarkable affair. It is usually held at night when there is plenty of moonlight. To add to the effect, fires are lighted, about which the dancers perform.

What is important to note is that no women or children are allowed near the scene. To warn them that the sacred mysteries are about to start, a bull-roarer—a peculiar instrument constructed of an oblong piece of wood whirled rapidly round at the end of a long string—is sounded.



© E. N. A.

NATIVE LADY IN SUNDAY CLOTHES

Aborigine women, in spite of their gaudy finery, usually go barefoot. Here is hung around the neck, a metal plate on which is engraved the name of the wearer.

For the purpose of the dance the performers are variously decorated with bunches of grass and feathers fastened in the hair and to wrists and ankles. They are fantastically painted with white clay and red ochre, and decorated with down

and feathers, or leaves and flowers. One man may be marked in white lines to resemble a skeleton; another will have white snakes painted on his chest and limbs. The effect of such a host thus ornamented, as they dance wildly around in the orange glow of their fires may well be imagined. To the antics of the dancers must be added the wailing chant of the singers who accompany the performance. At a corroboree the dance is not, as a rule, a repetition of any one previously executed. An exception to this is the "Molongo," common to many tribes throughout Australia. The name Molongo is taken from the chief character (an evil spirit) and the dance continues for about five days.

A corroboree is sometimes performed simply for amusement: in such instances a dramatic element is provided. One such dance gives a realistic representation of a cattle raid. The cattle are, of course, impersonated by people. These are surprised by the attacking party, some are "slain" with spears, and their carcasses are supposed to be cut up. There now appears on the scene a third party, intended for white stockmen, who—fittingly from the natives' point of view—are put to flight.

Hunters Imitate Kangaroos

A hunting corroboree in which the various performers enact the chase after a kangaroo or emu is an amusing spectacle to a white man. Near the coast a canoe dance may also be witnessed. The performers use sticks to represent paddles and move rhythmically from side to side to suggest the movement of a boat gliding over the water.

These Australian aborigines also dance just for fun. As dusk shuts down over a village, a huge pyramidal bonfire is lighted which throws an orange glow over the open spaces. Now the young men adorn their dusky heads with palm fronds stripped of leaves and fixed in their hair to resemble horns, and bind palm fronds around their wrists, legs and ankles. As

the native orchestra beats and thrums a rhythm, the dancers form a line and clap their hands or slap chests and thighs at certain intervals, while they chant in a minor key. Swaying lithely backward and forward and facing from side to side, they move faster and faster until they become so excited that they give vent to their emotions in three final blood-curdling yells.

That strange native weapon and toy, the boomerang, is of many varieties. The return boomerang is actually a toy, and, if used for any practical purpose, is employed only in the killing of birds.

Warriors Throw Boomerangs

But the war boomerang, thrown from under a shield while the assailant is stooping, can be projected as far as two hundred yards. Others are used in hunting, and it is remarkable with what dexterity they can be hurled. Apart from this ingeniously made contrivance, the native has shown no cleverness in devising weapons. His spears, clubs and throwing sticks are of the crudest form, with heads of stone, wood or bone.

As a people who are debased the Australian aborigines are destined to die out before the advancing tide of civilization. As it is, their numbers have dwindled from the forty thousand of a generation ago to about seventeen thousand. The finest specimens, physically, are undoubtedly those of the newly opened Northern Territory, where they rank as among the wildest of the race; but the Aruntas, living near the centre of the continent, are better developed than many of their neighbors.

Aborigines Nearly Extinct

Each state of Australia has its Aborigines Protection Board, so that government care is exercised over the remnants of the tribes and Mission stations with native schools which have been built. It cannot be many generations, however, before the aborigine becomes extinct.

NEW ZEALAND IN THE SOUTH SEAS

Dominion of a People Who Call England Home

The Dutch navigator Abel Janszen Tasman sighted New Zealand in 1642. The Polynesian Maoris had previously discovered North Island, which, with its white cliffs, they called Long Bright World (Ao-tea-roa). When Captain James Cook had ventured this far in the *Endeavor*, he spent six months here. The missionary, Samuel Marsden, landed in 1814. Great Britain annexed the islands in 1840 and twelve years later granted self-government to New Zealand. The map, which resembles a thousand-mile boot with its toe pointed toward Australia, and a piece gone from the ankle, shows the large North and South islands, the smaller Stewart Island, together with others not so large.

WHEN your ship has sailed about twelve hundred miles southeast of Australia, you will spy what looks like a long white cloud on the horizon. It is in reality the two large islands of New Zealand; and as you approach, you will find that they are mountainous and clad with forests. They are the abode of the remnant of a really superior brown race, the Maoris, who are dealt with in another chapter, and of a white population that is 90 per cent British.

The earliest explorers were the Maoris, about whom we tell elsewhere. Tasman discovered New Zealand in 1642, Captain Cook began exploring the coast in 1769 and Rev. Samuel Marsden established a mission in the Bay Islands in 1814. The first immigrants came in 1841 and settled at Port Nicholson, at which time the native chiefs ceded the islands to the British Crown—though about half of the Maoris later twice revolted. The present form of self-government dates from 1852, and in 1907 the Colony achieved Dominion status. New Zealand played a generous part in the World War, and now holds mandate over certain islands—the Western Samoans, and with Great Britain and Australia, the formerly German Nauru. Since 1923 the Governor-General of New Zealand has administered the Ross Sea area in the Antarctic; and in 1926 the Dominion took over the administration of the Tokelau or Union group of Pacific islands.

The first impression of the visiting tourist will be that of the singular beauty of the rugged coastline. The winding arms of the sea reach like tidal rivers

into the green land between high towering cliffs. So deep are the harbors that the largest ocean liners can anchor close to shore. The rivers are deep and swift and have carved deep beds for themselves out of the rocky bases of the mountains, making gorges of wild beauty. The Waikoto River, on North Island, is two hundred and twenty miles in length and the Clutha, on South Island, two hundred. The mountain backbone of South Island has been fittingly named the Southern Alps. Here the forests reach nearly to the snow line, mountaineering is popular, and Mount Cook (Aorangi), the "Sky Piercer," towers to over twelve thousand feet above the level of the sea. Though the climate in the north is nearly tropical, the heat is tempered by ocean breezes and by the banks of white cloud that gather every afternoon. At Auckland the hot month, January, ranges from 58.9 degrees to 73.7, and July, the cold month, from 57.6 degrees to 46.

North Island contains one of the most amazing sights in all New Zealand—a weird region known as the thermal district. A strip of tableland a hundred and fifty miles long by twenty wide, the mineral-hued ground, in places hot and crumbling beneath the feet, steams and trembles, here dotted with boiling springs, there with pools of hot mud. It is possible to spend weeks exploring this hobgoblin region, watching the geysers which periodically—with weird shrieks and whistlings—shoot columns of steaming water into the air. Curiously enough, ferns and flowers grow unharmed close beside the sulphurous vapors. At Ro-



NEW ZEALAND'S CHAIN OF ISLANDS AND ATTENDANT ARCHIPELAGO

torua, the one town of the thermal district, the government has erected splendid bath-houses; and the natives who live there may be seen placing the fish or other food to be cooked in a net and lowering it into a hot pool.

The stupendous geyser of Waimangu was created in 1900 in one abrupt explosion of black mud and rock, followed by a deafening hiss of white steam. Mount Tarawera erupted in 1886, destroying many villages ; but out of eighteen



Bushby

SNOW-CLAD PEAKS AND GREEN PALMS BESIDE STILL WATERS

Much of the scenery in both North and South Island is romantic in the extreme. Nowhere is there any lack of rain, and on South Island we may stand in a grove of palms and see the peaks of the Southern Alps, some of which are clad in eternal snow. On the south coast of South Island there are also wonderful fjords that rival in beauty those of Norway.



© E. N. A.

ONE OF THE GEYSERS AT WHAKAREWAREWA IN NORTH ISLAND

Whakarewarewa is a scene of volcanic activity near Lake Rotomahana. There are many geysers here, and some of them eject huge columns of water at fixed intervals with the regularity of clockwork. The wonderful Waimangu geyser, which also is near Lake Rotomahana, discharges a column of water and mud more than a thousand feet high.

hundred consecutive earthquake shocks that have been recorded, only this and one other have caused more disturbance than to jiggle the furniture. The geysers in Wairakei Valley are visited by countless tourists. One may not, however, come too near the Ngauruhoe volcano of Tongariro National Park, the cone of which discharges fumes of sulphuric acid through three craters. Nor may one approach the bed of hot sulphur called White Island, twenty-seven miles off the coast of North Island in the Bay of Plenty.

Though the New Zealand State Forest Service maintains her millions of acres of valuable forests by replanting and other methods, the less valued areas are cleared for pasturage. In clearing such tracts, the big trees are first killed by ring-barking; that is, a complete circle is cut through both outer and inner bark so that the sap is unable to rise. The smaller trees and bushes are cut down and burned, after which the ashes serve as a dressing for the grass that is sown.

We ought to mention that the Kauri gum used in the manufacture of varnish, one of the valuable products of the New

Zealand forests, is the fossilized resin of pines of prehistoric ages.

The first gold discovered, that which precipitated the wild gold rush of the sixties, was found in the alluvial deposits of the coast province of Westland. That first field is now practically exhausted and most of the gold mined to-day comes from the quartz mines of the northern province of Auckland.

However, New Zealand's coal is worth almost three times as much as her gold. Westland has seams of the finest grade. At Greymouth, on the Westland Bight, the state-owned mines produce coal which, by being sold at a comparatively low price, keeps down the price of all coal mined on the islands. To complete the list, a little north of the coal mines is a solid mountain of iron ore which promises important developments. Tungsten ore was mined here during the World War.

It is none the less true that the most important sources of wealth are agriculture and stock-breeding. Because of the varieties of soil and climate, there is nearly every kind of fruit and vegetable, from oranges to wheat. The Dominion



Bushby

STEAM ISSUING FROM THE DRAGON'S MOUTH, NORTH ISLAND

The Dragon's Mouth is one of the many volcanic fumaroles in the thermal region of North Island. This region was a Maori stronghold long before New Zealand was colonized by white men, and the Maoris still use the hot springs for cooking and bathing purposes, as they and their ancestors have been doing for centuries.



BY THE WAIU RIVER: NEW ZEALAND ANGLERS FISH FOR THE BROWN TROUT WITH ROD AND GAFF

Trout are not native to the rivers of New Zealand, but they have been introduced there in such large numbers that most of the streams of the islands are now well stocked. The Waiau River, which reaches the sea on the east coast of South Island, is a favorite fishing ground for anglers after trout. The fish grow to a good size—up to eight pounds or more. Indeed, in some of the lakes there are trout actually weighing twenty-five pounds—though this weight is of course excelled by the Alaskan trout. See the gaff, the barbed spear or hook fitted with a handle.



New Zealand Govt.

FISHERMEN CAPTURING WHALES THAT HAVE BEEN STRANDED UPON THE SHORE OF KAIPARA HARBOR

A small species of whale known locally as black fish frequents the waters of the coast of New Zealand. They often swim so close to the beach that the outgoing tide leaves them stranded. Kaipara Harbor is an inlet of North Island, and its shelving shore makes an excellent whale trap. New Zealand is noted for its fishing. Salmon and trout may be taken in the rivers and lakes, and kingfish, swordfish and marko sharks afford unrivaled sport for deep-sea fishermen. Unsportsmanlike as it no doubt sounds, the trout in Lake Wakatipu can be taken only by means of a net.



Shepstone

FALLEN GIANTS BEING HAULED TO A SAWMILL BY SEVEN YOKE OF OXEN

Oxen are required in New Zealand to haul the loads of Kauri pine during their journey to the sawmill. The wood, a rich amber shade that takes a fine polish, is used for boat-building, furniture, doors and window-sashes; the resin is extremely valuable and quantities are annually ex-

ported. Most of the trees of New Zealand are hardwood and their timber is of great commercial value. For a time the forests were being cut down so rapidly that a Forestry Department was created to control the matter, though the conservation of unripe trees really aids the lumber industry



New Zealand Govt.

MONSTER KAURI PINE CRASHING TO THE GROUND

Kauri pines are the finest of the pine family. They are peculiar to New Zealand, and often grow to a height of one hundred feet, while certain trees have been known to measure thirty-five feet around the trunk. It takes about three hundred years for a Kauri to attain a diameter of five feet, and large specimens are really ancient.



© E. N. A.

ROAD THROUGH THE DAN O'CONNELL RANGE IN SOUTH ISLAND

Not far from Queenstown, on Lake Wakatipu, this road has been cut along the side of a precipitous mountain. From this highway travelers can look down upon the valley hundreds of feet below. South Island is the most mountainous portion of New Zealand and railway and road construction is both difficult and expensive there.



New Zealand Govt.

YOUNG SHEPHERDS URGING THEIR FLOCK ACROSS A STREAM

Children in New Zealand become self-reliant at an early age, and in the country it is nothing to see a flock of sheep being herded along a track by a mere boy. The young shepherd in the foreground is riding with bare legs and his feet scarcely reach the stirrups; but he could probably ride a horse bareback almost as soon as he could walk.

NEW ZEALAND IN THE SOUTH SEAS

is one of the chief sources of supply of foodstuffs for Great Britain. Butter, cheese and frozen meat fill the holds of the cargo boats bound for the mother country. From the earliest days the settlers have been interested in the breeding of sheep and cattle and sheep-breeding has grown to be a great industry in New Zealand. Indeed, New Zealand is important in the world's commerce for her sheep and wool, beef, pork and dairy products. Oysters are exported and whale-fishing has not entirely declined. Her manufacturing consists of the preparation of meat and dairy produce for export in the refrigerator ships that carry it to England, Australia and the United States.

As for cattle, most of them are to be found on North Island, though on Canterbury Plain, South Island, is a huge

grazing-ground. Here we may see dipping and shearing, the weighing and cording of the thick fleeces and the cold storage system of transport. The farmers co-operate to maintain a steady price for their goods, and modern agricultural implements do much of the work. The cows on many farms are milked by machinery. Some of the cowsheds are even lined with white tiles like a bathroom.

North and South islands are connected by ferry steamers. Christchurch, a little way down the west coast of South Island, is the chief manufacturing town and, indeed, one of New Zealand's four largest cities. Like the others, it has motor buses and motor highways, parks and fine public buildings.

Dunedin, farther south along the east coast, was first settled by the Scotch. But to return to Cook Strait and across to



Bushby

SETTLER'S HOME IN AN UNDEVELOPED PART OF AUSTRALIA

At first the settler erects a neat wooden bungalow of two or three rooms, with a corrugated iron roof. As he clears more land and his crops become larger, he may provide himself with a larger dwelling. Although the population of New Zealand is widely scattered, nearly all of the settlers have neighbors within a few hours' horseback ride.



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GOLD-DREDGE IN OPERATION NEAR HOKITIKA IN SOUTH ISLAND

Gold was discovered on the west coast of South Island in 1864, and the district of Westland, in which Hokitika is situated, is one of the most important gold-mining areas in the island. The dredge is operated by electricity, the power being generated at Lake Kanieri. The largest mine of the Dominion is at Waiki, North Island.

North Island, we find that Wellington, the capital city, is connected with Christchurch by fast turbine steamers. At Wellington on the edge of a splendid land-locked harbor, ocean liners can come within half a block of the main business quarter. The residence district clings to the hills that rise steeply behind the city, and it is a commonplace for a house to have windows that look across a neighbor's roof.

Auckland, in the north, a red-roofed city built in the midst of greenery that lasts the year around, has a deep harbor busy with ocean-going steamers and gay with yachts and sailboats. And though many New Zealanders have never set foot on the British Isles, the ships which sail for England are known as the "home boats."

Outside the cities, the settlers' home is likely, at first, to be a three-room frame cottage with a corrugated iron roof—hot in summer but proof against the sparks of the dread forest fires, and pleasantly musical during a rain storm. This dwelling is usually built in some clearing of the forest, perhaps miles from the nearest neighbor.

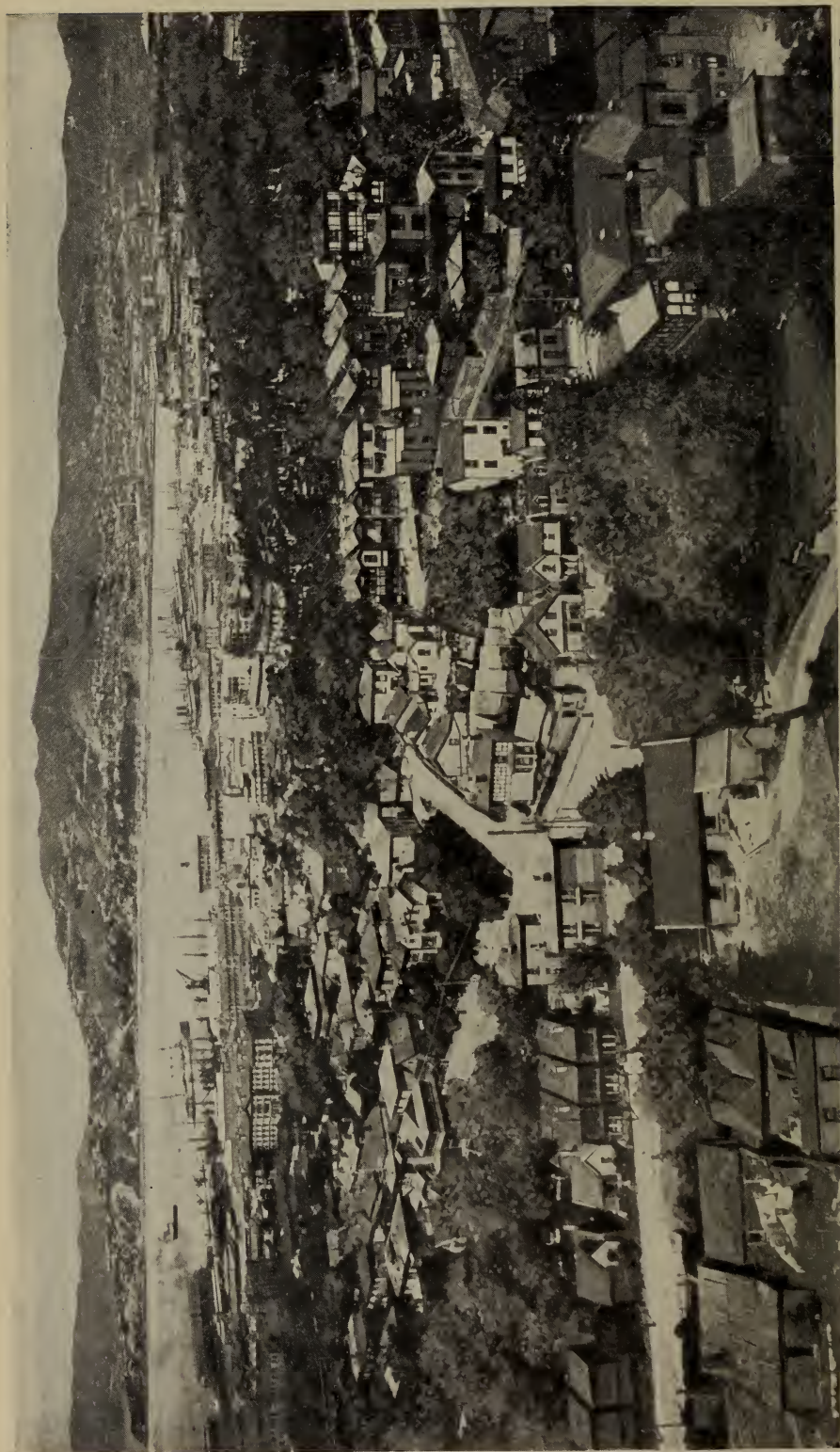
With its small, homogeneous population, New Zealand is pre-eminently a workingman's country. The state owns the railways, the postal, telegraph and telephone systems, has a controlling interest

in the Bank of New Zealand and in the national provident fund, besides which it carries out life, accident and fire insurance. It has also reserved the development of its water power.

After the World War, government loans were made to all those who wished to buy farm lands, to build houses or to start as farmers; old-age pensions are compulsory; and co-operative marketing is practiced by meat and dairy producers. The most promising young people are awarded national scholarships for work at New Zealand University. The sheep-owners of the Dominion, who became wealthy during the World War, maintain a fund for the training of orphans of the sailors of the World War and the government provides their passage from England.

A special arrangement also exists by which British schoolboys between seventeen and nineteen years of age may come in groups to be taught farming. The New Zealand child endowment act of 1926 provides for the granting of allowances toward the maintenance of children whose parents have inadequate incomes.

Whereas under the original colonizing corporation, The New Zealand Company, vast tracts were held by a few big sheepmen or by English syndicates and operated by tenant farmers, the government has latterly been cutting these areas into



New Zealand Govt.

TOWN AND SPACIOUS HARBOR OF WELLINGTON, THE CAPITAL OF NEW ZEALAND

Auckland is actually the largest city of North Island and was the capital of New Zealand up to 1865, when the seat of government was transferred to Wellington. The present capital was founded in 1840. It was the first settlement of the New Zealand colonists. The city is encircled by steep hills, which have made expansion extremely difficult. The business quarter is largely confined to a narrow strip of land beside the splendid harbor, while the residential section of the city climbs up the sides of the hills, as one may see from the photograph.



New Zealand Govt.

LONG TRESTLE BRIDGE OVER WHICH PASSES THE RAILWAY TO PICTON, SOUTH ISLAND

Picton is a little port situated at the head of Queen Charlotte Sound, on the north coast of South Island. It is connected by railway with Blenheim, eighteen miles away. Blenheim is the capital of the Marlborough district, more than half of which is devoted to sheep-grazing.

The Wairau Plain, through which flows the Wairau River, is the principal agricultural district, and good crops of wheat, oats and barley are obtained. About thirty-five miles west of Picton, on Tasman or Blind Bay, is Nelson, one of the chief ports of South Island.

NEW ZEALAND IN THE SOUTH SEAS

small farms for resident owners. The government has also selected over seventy sites for hydro-electric projects.

Under the Empire Settlement Act, fully twelve thousand assisted immigrants recently came into the country in the course of one year. But however greatly New Zealand needs immigrants of the sort she desires for citizens, she takes an uncompromising attitude toward the exclusion of immigration from Asia. She has created a department of external affairs to deal, not alone with the immigration problem, but with external questions, such as

her administration of the Cook Islands. Her territorial jurisdiction, which includes western Samoa, now extends from near the equator, at Nauru, to the South Pole; for in 1923 her territorial jurisdiction was extended to include the Ross Dependency—composed of the Ross and Victoria quadrants of the Antarctic continent immediately south of New Zealand, a region that is described in another volume. With Australia, New Zealand has in Nauru rich deposits of the phosphates so essential to her agricultural productiveness. Otherwise Nauru is of little consequence.

NEW ZEALAND: FACTS AND FIGURES

THE COUNTRY

A group of islands lying in the South Pacific about 1,200 miles east of Australia. The principal islands, North Island and South Island, are separated by Cook Strait, and together with Stewart Island, form a broken chain. The total area, including Chatham Island (east of Cook Strait) and small outlying islands, is 103,568 square miles; population, excluding the natives and that of the smaller outlying islands, 1,344,469 in 1926.

GOVERNMENT

British colonial dominion; legislative power vested in a Governor-General and a General Assembly of two Chambers—Legislative Council (members appointed) and House of Representatives (members elected); advisory cabinet. Represented in England by High Commissioner. Universal adult suffrage. Country is divided into counties and boroughs for purposes of local government.

COMMERCE AND INDUSTRIES

Stock-raising, dairying and agriculture are the principal occupations. In 1928 there were 31,558,485 head of livestock. Crops grown for local consumption are: wheat, oats, barley, forage crops and potatoes. Gold, silver and coal are mined. Chief industries confined to preparation of pastoral and dairy products for market such as meat-freezing and preserving, butter and cheese-making. In 1926 New Zealand was fourth in furnishing wool for world trade and fifth in supplying beef and beef products. Chief exports are wool, butter, preserved milk and cream, cheese, skins and pelts, agricultural products, phormium tenax, gold and timber. Chief imports: wearing apparel, metal manufactures, motor cars, oils, iron and steel, books and paper, tobacco and chemicals.

COMMUNICATIONS

Railway mileage in 1928 for North and South islands, 3,297, largely government-owned; chief towns provided with street car systems; telephone and telegraph systems

operated by government; length of telephone wire in 1927, 475,649 miles; telegraph wire, 26,336 miles.

RELIGION AND EDUCATION

No state aid to any form of religion; many denominations represented. Education free and compulsory between ages of 7 and 14. In 1927 there were 223,388 pupils in public primary schools and 23,336 pupils in public secondary schools; 345 registered private schools, industrial schools, normal schools, technical and special schools. Schools for the Maoris and native village schools. University of New Zealand has 4 constituent colleges, located at Dunedin, Christchurch, Auckland and Wellington.

CHIEF TOWNS

Estimated population in 1928: Wellington (capital), 130,120; Auckland, 206,810; Christchurch, 123,370; Dunedin, 84,060; Wanganui, 27,510; Invercargill, 22,910; Palmerston North, 20,940.

ISLANDS

Chatham Islands (536 miles east of New Zealand) have an area of 375 square miles; sheep farming is carried on. A depot for shipwrecked sailors is maintained in the uninhabited Auckland Islands (200 miles south of Stewart Island). Kermadec Islands (600 miles N.N.E. of New Zealand) are uninhabited. Other small uninhabited outlying islands within the boundaries of New Zealand are: Campbell Island, the Three Kings Islands, the Antipodes Islands, the Bounty Islands and the Snares Islands. Ross Dependency, consisting of the coasts of the Ross Sea with the adjacent islands and territories, is under the jurisdiction of the Governor-General of New Zealand.

New Zealand holds a mandate for the former German islands of Western Samoa, and administers the Cook Islands and Union Islands in Oceania. (For Facts and Figures see page 321.)

LIFE AMONG THE MAORIS

New Zealand's Splendid Warrior Race

Of all the primitive peoples whose lands have come to be dominated by members of the white race, the natives of New Zealand are perhaps the finest and the most intelligent. Assuredly they come nearer to being accepted by their white neighbors on a basis of social and political equality. Another chapter deals with the New Zealanders who call England "home." This one treats of the Maoris, who are rapidly assimilating British culture and who, though once they fought the coming of the white colonists, freely gave their services during the World War to the British Empire.

THOUSANDS of years ago in the South Seas there was a hero named Maui. We do not know from what island he came, but he put out to sea with his brothers and cast his line into deep waters. His fish-hook was an enchanted one, for it was made from the jawbone of a famous ancestor. Now when Maui dropped his hook overboard, it caught in the house of Tonganui, who was the grandson of Tongaroa, the fish-god. Only a great hero like Maui could pull up such a catch. His brothers were frightened at the huge waves which were thus created, but Maui was not to be dissuaded from his purpose. He pulled and pulled, and eventually hauled up not only Tonganui's house but the land on which it stood. This land—at first called the Fish of Maui—was the country we now know as the dominion of New Zealand. That is the curious story which the Maoris have had handed down to them by their forefathers to explain their origin a long time ago.

The great Maui is their national hero. He was a chief and a magician. It was he, they say, who snared the sun with a rope of flax, and, by preventing it from traveling too fast, lengthened out the days. It was he who, to punish his quarrelsome kindred, put his hand out before the moon and so at times caused darkness to come over the face of the earth.

The legends about Maui are numerous. The oldest ones explain how the hero came from Hawaiki with nine canoes, the names of which are still preserved as tribal names. Just where Hawaiki was located we cannot say; but learned men believe it to have been an island near Samoa. It is clear, however, that the Maoris are closely related to the Polynesian race who inhabit Samoa, Tahiti and other islands of the South Seas. They are similarly brown-skinned, and there is a great resemblance between their languages. They have also the same custom of "tapu," the law of prohibition, which



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OLD-FASHIONED TATTOO MARKING

Now fallen into disfavor, tattoo ornamentation was once a popular adornment among Maori men. Indeed, tattooing was considered one of the Maori fine arts.



American Museum of Natural History

YOUNG MAORI WARRIOR AND HIS GREAT WOODEN SPEAR

Fighting between the colonizers of New Zealand and the Maoris did not cease until 1871. In these wars the Maoris proved themselves to be brave and skillful fighters, even when they were opposed by regular troops. All able-bodied men were soldiers, and their arms consisted chiefly of old muskets, tomahawks, clubs and wooden spears.



© Keystone View Co.

TWO MAORI GIRLS ENVELOPED IN THEIR ROBES OF FLAX

Originally the Maoris wore very little clothing, the women wearing a sort of kilt. But they are clever at weaving enormous blankets, such as these you see in the picture. Smaller kinds are made to be worn on the shoulders or around the waist. The feathers of the kiwi—a wingless bird—are sometimes used as ornaments.

has been explained in the chapter on Sunshine Isles and Savages. There was no written language among the Maoris until early in the last century.

Of these early inhabitants of New Zealand we have the first accounts from Captain James Cook. Both France and Spain claim that some of their sea-captains actually discovered the islands, and in 1642 Abel Tasman, the Dutch voyager, reached the land, but sailed away because the natives proved hostile. It was Captain Cook, however, who, in 1769, at least re-discovered New Zealand and brought home a full description of the Maoris.

He told of their inclination to can-

nibalism. In the Polynesian Islands, as we have seen, this practice was common. The general belief was that, by eating a notable enemy, certain of his qualities, such as courage and cunning, were acquired by the conqueror. Many scientists, however, hold the view that the custom was merely followed as a method of casting disgrace upon the slain man and his people. Whatever may have been the reasons, it is certain that the New Zealand natives, like many other savage races, were at one time addicted to cannibalism. The coming of the "pakeha," as they call the white man, into their country, especially the influence of the missionaries,

LIFE AMONG THE MAORIS

gradually forced them to give up the practice.

Following the custom of the Polynesians, the Maoris freely tattooed themselves. In Tahiti, the Marquesas Islands and elsewhere in the South Seas, tattooing was done but lightly, a mere surface pricking. In New Zealand the natives who underwent the ordeal of "moko," as it was termed, did the thing more thoroughly. The designs on face and body were actually chiseled into the flesh, for the instruments used were made of stone, the bones of birds or the teeth of sharks. With the natives, tattooing was

a mark of identification as well as an ornament, and there are instances on record in which a chief, unable to write, has drawn his personal moko as a signature to a document. As a practice, tattooing is dying out. On the faces of only older men nowadays is tattooing to be seen; among the young Maoris, who wish to copy the white man's ways, it has become unpopular. The women of the tribes, however, have been more reluctant to give it up. They still decorate themselves on the lips and chin.

In regarding the Maori as a kinsman of other South Sea peoples, we must note



Topical

OLD MAORI WOMAN ENGAGED IN MAKING A MAT OF FLAX

Here we have an aged Maori dressed in European dress, and on page 377 are two girls in their native costume, which is more suitable and becoming. New Zealand flax is a very useful plant to the Maoris, who make mats and carpets as well as clothing of it. The marks on the woman's chin are tattooing.



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PERFORMING THE POI DANCE TO THE MUSIC OF AN ACCORDION

One of the oldest dances of the Maoris is the poi, which we should hardly call a dance at all, as, instead of moving about and executing various steps, the performers sit or stand in a row, keeping their places throughout the dance. They turn from side to side and twirl between the fingers balls of dried raupo leaves, which they knock together.



American Museum of Natural History
MAORI READY FOR WAR

A tattooed brave strikes a ferocious attitude and imagines that his grimace will terrify the enemy.

his fondness for dancing. In weaving and carving he was far in advance of other tribes, and he has shown the same progress in the matter of the dance. This form of recreation is not simply a way of amusing himself or a means of working the young warriors up to a pitch of excitement. The dances are ceremonial, illustrating, as a rule, an actual story. Often they are a record of events in Maori history.

A popular dance is that of the canoes. A number of girls—perhaps thirty or forty of them—take part. Some are seated

to represent the paddlers; others, standing behind them, sway their bodies with the motion of waves rising and falling. In addition to the regular movements of the actors there is the effect given by the flax dancing skirts worn by the girls. The sound of these is somewhat like the swish of water against the sides of a canoe. The girls carry what are called “poiballs” in their hands. These are small balls of raupo leaves attached to a flax cord. When they are struck one against the other the spectator can readily imagine that he hears the paddle-strokes.

The native who has adopted civilized conditions wears the ordinary dress of the white man. The one who clings to the dress of his ancestors is content with little clothing. He usually appears in a fringed garment with a larger cloak reaching from shoulder to knee. The most elaborate and costly article of dress is the feather cape or cloak. It was in this that the native weaver excelled, for this was a work which called for great skill. Feathers from the kiwi and other birds were woven in, or sometimes fastened to the threads by means of the gum of the flax, one row of feathers overlapped another. The result was most effective.

Just as, with the decline in population, weaving is becoming a thing of the past, so is the art of woodcarving. Old Maori carvings display considerable artistic skill and taste. There is no doubt that the native New Zealanders were extraordinarily skillful in this direction. The carving of pillars in houses, the decoration of temples, of “patakas” or tribal store-houses and of boxes wherein were kept cloaks and other garments was elaborately done. Such carving was frequently the work of more than one generation. It was carried on by a son who had been taught the art by his father, and who gave years of patient labor to the task.

The Maori, it must be remembered, belongs to a warrior race. In recent times there were the Maori wars of 1861 to 1871, when the natives felt that they were unjustly treated in the matter of their lands and rose in arms. In the olden

LIFE AMONG THE MAORIS

days the Maori made himself feared in his terrible war canoe. These boats were often eighty feet in length. They were built of kauri pine, the stately tree which is New Zealand's pride.

A Maori war canoe was a handsome craft, for here the art of carving was displayed at its best. The boat, from stem to stern, was ornamented with designs. The prevailing color was red, the sacred hue, and, with a plentiful inlaying of shells and feathers, the general effect was striking. A carving of a human figure was at the prow, while other similar figures might be placed at intervals along the sides and at the stern. Feathers were favorite ornaments. These were tied together in bunches, and floated airily in the wind as the craft was driven through the water by the paddlers.

The majority of the Maoris are now converts to Christianity, but many still

retain the old belief in spirits and enchantment, in tapu and the meaning of dreams. Just as the mythical Maui has figured in their folklore as the hero of marvelous deeds, so various spirits were invented by them to account for the creation of the earth, the sky, the sun, moon and other natural wonders. It was even the spirits, they said, who taught them how to make fish nets of flax leaves.

In their games, Maori boys and girls find much the same recreation as do their white neighbors. They play the string game of cat's cradle, they fly kites, skip and play with tops and hoops. They knew the game of draughts before the pakeha came into their midst. In one of their games the players sit in a group and proceed to make the most horrible grimaces they can invent. At the same time they writhe and squirm with their bodies and give vent to deep groans. He who suc-



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COUNTRY DANCE PERFORMED TO THE CLAPPING OF HANDS

Lines of Maori girls and women are beating time with their hands while they dance. Their rustling flax dresses are in accordance with the gala spirit, and show, in their bold, well-arranged patterns, the artistic skill that the Maoris have attained. Some of the dancers are wearing elaborately worked head-bands to confine their hair.



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PUBLIC BATH FED BY HOT SPRINGS IN A MAORI VILLAGE

In the hot springs district of North Island of New Zealand the children have no excuse for dirtiness, since they can have hot baths all the year around in the open air. Certain pools are used for washing clothes and others for cooking. Some, filled with hot mud, have long been held to have a curative effect in certain diseases.

ceeds in making the ugliest face becomes the winner. With games like this, the telling of stories and the asking of riddles, both young and old pass many hours of leisure.

The native name for a Maori house is "wharé," and originally a tribe would have one or more large wooden houses for communal use and for the accommodation of guests. There were separate sleeping wharés in which the fur-

niture consisted of reed mats and couches made of grass and fern. A Maori village, such as was found by the first white voyagers to New Zealand, was protected by stockades and was known as a "pah." It was built upon a hill to give greater security from enemies, and usually had high watch-towers from which the villagers could survey the surrounding countryside, and in which they could offer a strong defense. To-day the Maori pah

LIFE AMONG THE MAORIS

is to be encountered only in the low-lying districts, such as the region of the hot springs in North Island, where geysers and boiling water are found. The springs of Lake Rotorua are among the best known. Near by are the villages of Ohinemotu and Whakarewarewa.

At one time the Maoris lived on the flesh of the moa, a giant bird long since extinct, and on dogs, fish, and such vegetables as the sweet potato and the taro. They even ate human flesh. Fortunately, they have long since lost their cannibal appetites, and now have a diet not very different from that of white New Zealanders.

The glory of the Maoris is the glory of the past. Once a powerful, warlike race, hundreds of thousands strong, they have now dwindled in numbers to about fifty

thousand. The spread of consumption and other diseases has helped materially to reduce the population. That they are a race superior to most other South Sea peoples is shown by their readiness to adapt themselves to the white man's civilization. There are, in New Zealand, 124 native village schools, with over six thousand pupils, as well as eleven secondary schools for Maoris, having nearly five hundred pupils. Educated Maoris hold many public positions in their country. They are even elected to the legislative assembly. Since the census of 1896, their numbers have been slowly on the increase, and there is reason to hope that this fine people will not suffer the extinction that has been the fate of some other native races, who have come in contact with the civilization of the white man.



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MAORI HOUSEWIFE MAKES USE OF A NATURAL WASH-TUB

The Maori washerwoman need not worry over hot water, since she has an unfailing supply from the earth. All around her steam is rising from the boiling springs and cracks in the ground; and if she does not immediately find water of a suitable temperature she has only to try another of the many pools of varying degrees of warmth.



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VENERABLE CHIEF WHO PROUDLY BEARS INSIGNIA OF RANK

The greenstone club, polished and sharpened, is the sceptre of the Maori chief. He stands beside a pillar carved with two grotesque faces. One figure grasps a club similar to the one held by the chief. Note the likeness of these posts to the totem poles of the Indians of the northwest coast of North America.

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